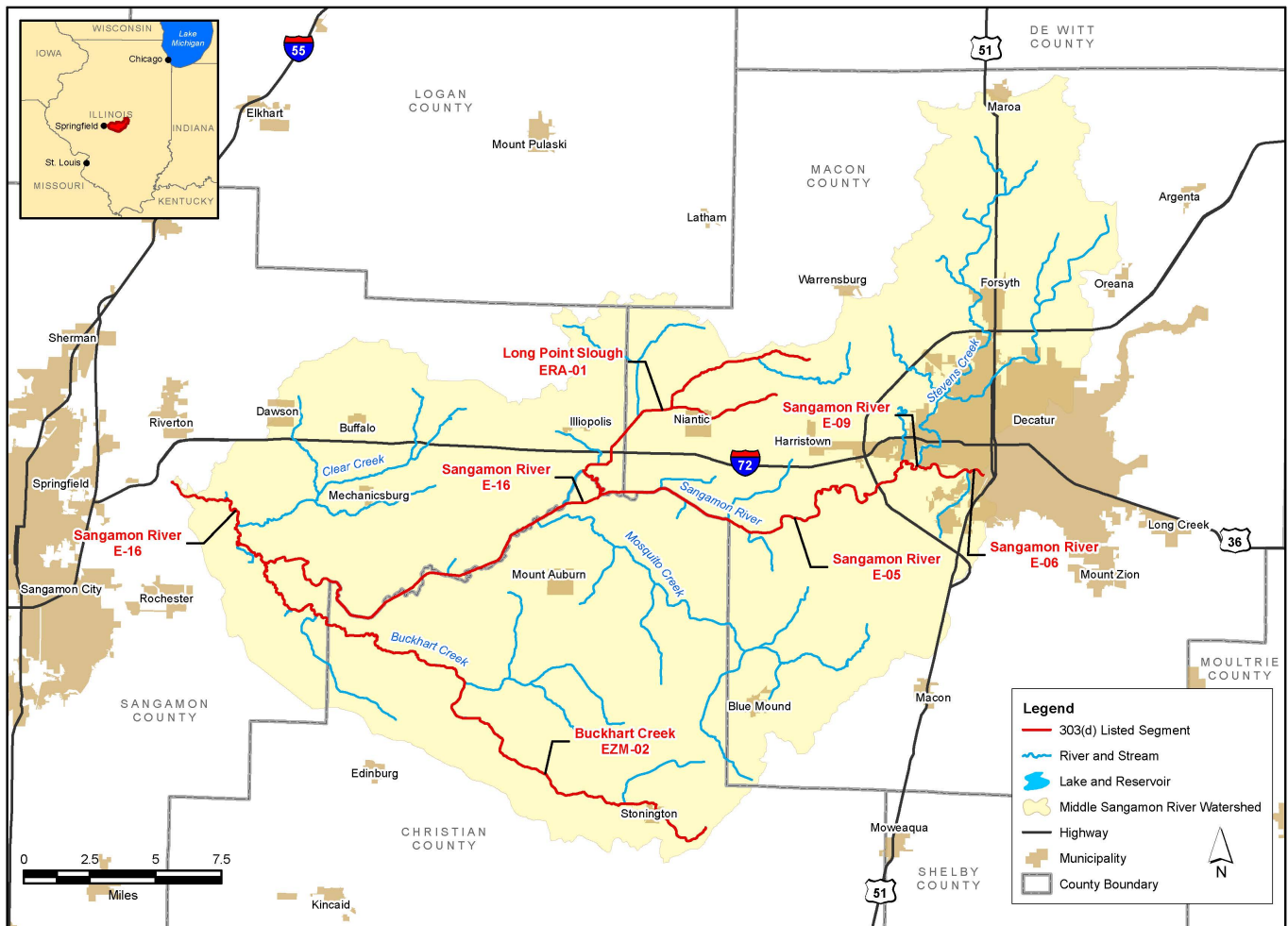




IEPA/BOW/18-004

Middle Sangamon River Watershed TMDL Report



Middle Sangamon River
TMDL Watershed

THIS PAGE LEFT INTENTIONALLY BLANK



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

JUL 11 2018

REPLY TO THE ATTENTION OF:

WW-16J

Sanjay K. Sofat, Chief
Bureau of Water
Illinois Environmental Protection Agency
P.O. Box 19276
Springfield, IL 62794-9276

RECEIVED
JUL 16 2018
SW/WS/IFAS

Dear Mr. Sofat:

The U.S. Environmental Protection Agency has reviewed the final Total Maximum Daily Loads (TMDLs) and supporting documentation for the Middle Sangamon River. The River is located in central Illinois and flows in a westerly direction in Macon, Christian and Sangamon Counties, and a small portion in Logan County (IDs E-05, E-06, E-09 and E-16 in the Sangamon River). The TMDLs address four fecal coliform impairments in the Middle Sangamon River.

These TMDLs meet the requirements of Section 303(d) of the Clean Water Act and EPA's implementing regulations at 40 C.F.R. Part 130. Therefore, EPA hereby approves Illinois' TMDLs. The statutory and regulatory requirements, and EPA's review of Illinois' compliance with each requirement, are described in the enclosed decision document.

We wish to acknowledge Illinois' effort in submitting these TMDLs, and look forward to future TMDL submission by the State of Illinois. If you have any questions, please contact Mr. Peter Swenson, Chief of the Watersheds and Wetlands Branch at 312-886-0236.

Sincerely yours,

A handwritten signature in cursive script that reads "Linda Holst".

Linda Holst
Acting Director
Water Division

Enclosure

cc: Abel Haile, IEPA

DECISION DOCUMENT FOR THE APPROVAL OF THE MIDDLE SANGAMON RIVER, ILLINOIS WATERSHED TMDL

Section 303(d) of the Clean Water Act (CWA) and EPA's implementing regulations at 40 C.F.R. Part 130 describe the statutory and regulatory requirements for approvable TMDLs. Additional information is generally necessary for EPA to determine if a submitted TMDL fulfills the legal requirements for approval under Section 303(d) and EPA regulations, and should be included in the submittal package. Use of the verb "must" below denotes information that is required to be submitted because it relates to elements of the TMDL required by the CWA and by regulation. Use of the term "should" below denotes information that is generally necessary for EPA to determine if a submitted TMDL is approvable. These TMDL review guidelines are not themselves regulations. They are an attempt to summarize and provide guidance regarding currently effective statutory and regulatory requirements relating to TMDLs. Any differences between these guidelines and EPA's TMDL regulations should be resolved in favor of the regulations themselves.

1. Identification of Waterbody, Pollutant of Concern, Pollutant Sources, and Priority Ranking

The TMDL submittal should identify the waterbody as it appears on the State's/Tribe's 303(d) list. The waterbody should be identified/georeferenced using the National Hydrography Dataset (NHD), and the TMDL should clearly identify the pollutant for which the TMDL is being established. In addition, the TMDL should identify the priority ranking of the waterbody and specify the link between the pollutant of concern and the water quality standard (see section 2 below).

The TMDL submittal should include an identification of the point and nonpoint sources of the pollutant of concern, including location of the source(s) and the quantity of the loading, e.g., lbs/per day. The TMDL should provide the identification numbers of the NPDES permits within the waterbody. Where it is possible to separate natural background from nonpoint sources, the TMDL should include a description of the natural background. This information is necessary for EPA's review of the load and wasteload allocations, which are required by regulation.

The TMDL submittal should also contain a description of any important assumptions made in developing the TMDL, such as:

- (1) the spatial extent of the watershed in which the impaired waterbody is located;
- (2) the assumed distribution of land use in the watershed (e.g., urban, forested, agriculture);
- (3) Population characteristics, wildlife resources, and other relevant information affecting the characterization of the pollutant of concern and its allocation to sources;
- (4) present and future growth trends, if taken into consideration in preparing the TMDL

(e.g., the TMDL could include the design capacity of a wastewater treatment facility); and (5) an explanation and analytical basis for expressing the TMDL through *surrogate measures*, if applicable. *Surrogate measures* are parameters such as percent fines and turbidity for sediment impairments; chlorophyll *a* and phosphorus loadings for excess algae; length of riparian buffer; or number of acres of best management practices.

Comment:

Location Description: Section 1.2 of the TMDL states that the Illinois Environmental Protection Agency (IEPA) has submitted the Middle Sangamon River Watershed TMDL to address impaired waters in the watershed. The River is located in central Illinois and flows in a westerly direction in Macon, Christian and Sangamon Counties, and a small portion in Logan County, draining a total of 328,000 acres (IEPA Segment IDs E-05, E-06, E-09 and E-16 in the Sangamon River). This TMDL submittal includes four TMDLs for fecal coliform in four impaired segments of the Sangamon River, and addresses the Primary Contact Recreational Use impairments.

Though Section 1.2 of the TMDL states that Long Point Slough (ERA-01) and Buckhart Creek (EZM-02) are impaired for Aquatic Life Use by sediment/siltation, IEPA did not establish TMDLs for those segments but instead developed two Load Reduction Strategies (LRS) for Non-Volatile Suspended Solids (NVSS); the waterbodies are tributaries to the Sangamon River. An LRS was completed in lieu of a TMDL for those segments, because IEPA defers development of TMDLs when there are no numeric water quality standards for certain pollutants. The portion of the TMDL document that includes the NVSS approach and methodology was not reviewed for this decision document. In addition, a TMDL for Dissolved Oxygen (DO) was not developed for Buckhart Creek, as IEPA will pursue delisting Buckhart Creek for DO based upon recent sampling results indicating that the waterbody is no longer impaired for low DO (Section 5.1.3 of the TMDL).

The two most common soil types in the watershed are Ipava silt loam (17.1%) and Sable silty clay loam (17.2%), with other soil types accounting for less than 8% each. The soil groups are classified by IEPA based on their characteristics for runoff potential and water transmission through soil. The soils in the watershed are primarily (Section 2.4.1 of the TMDL):

- B/D, drained condition (38.4%) – moderately low runoff potential when thoroughly wet, unimpeded water transmission through soil; undrained condition - high runoff potential when thoroughly wet (i.e., changing runoff potential depending on drained/undrained condition of the soil);
- B (35.1%) - moderately low runoff potential when thoroughly wet, unimpeded water transmission through soil;
- C/D, drained condition (20.8%) – moderately high runoff potential when thoroughly wet, unimpeded water transmission through soil; undrained condition - high runoff potential when thoroughly wet.

Land use: The area is cropland planted predominantly in corn (43.2%) and soybeans (31.5%), followed by grass/pasture at 6.6%, developed medium/low intensity and developed/open space

totaling 11.5%, deciduous forest 4.8%, and the remaining land covers all less than 1% (Section 2.3 of the TMDL). The K-factor describes the erodibility of the soil and the higher the value, the greater the erodibility; factors include percentage of silt, sand, organic matter, soil structure and permeability. The range of the K-factor in the Middle Sangamon River watershed is 0.02 – 0.69, and in the watershed the K-factor ranges from 0.02 – 0.49 (Section 2.4.1 of the TMDL).

Problem Identification: Section 1.2 of the TMDL states that the Sangamon River segments are impaired for Primary Contact Recreation Use by fecal coliform. Figures 5-2 to 5-5 of the TMDL summarize data which demonstrate that the fecal coliform standards have been exceeded in the four segments.

Pollutant of Concern and Sources: Fecal coliform is the pollutant of concern (Section 1.2 of the TMDL).

Nonpoint Sources - primarily agricultural runoff, animal operations, and failing septic systems (Section 5.3.1, 5.3.2, and 5.3.3 in the TMDL).

- *Tillage practices* are directly related to either runoff of sediment or instream problems with sedimentation/siltation, as well as transport of pollutants such as fecal coliform. The counties' tillage practices are predominantly conventional: 84% (corn) and 69% (soybean) in Macon County; 92% (corn) and 18% (soybean) in Christian County, and; 52% (corn) and 51% (soybean) in Sangamon County which may add to agricultural runoff. Reduced till, mulch till or no till practices are much less prevalent in each county and crop, except reduced till is used in 70% soybeans in Christian County use reduced till 70% of the time.
- *Tiling and drainage systems* are estimated to be located in nearly all fields due to the nature of the soils, which lack good drainage characteristics. Up to 30% of farms have fully tilled fields. Runoff from fields (especially with spread manure) can be exacerbated by tile drainage lines, which channelize the stormwater flows and reduce the time available for bacteria to die-off.
- *Animal operations* are generally believed to be decreasing in the watershed based on comparison of animal count data from 2007 and 2013 from the Census of Agriculture (Section 5.3.2 of the TMDL). The exceptions are: hogs and pigs increasing in Christian County 33%, cattle/calves increasing 78% and poultry increasing 8% in Macon County. Beef, dairy, sheep/lambs, and horses/ponies are otherwise decreasing in the watershed.
- *Septic systems* that are failing or leaking can contribute to fecal coliform. About 20% of Macon County are on private septic systems. The town of Mount Auburn does not have a municipal sewer system, nor do the outlying residential areas in Christian County.

Point Sources - NPDES permits in the watershed include Sewage Treatment Plants (STPs), Water Treatment Plants (WTPs), and industrial facilities as shown in the following Table 5-4 (from the TMDL).

Table 5-4 Permitted Facilities Discharging to or Upgradient of Impaired Segments in the Middle Sangamon River Watershed

Facility ID	Facility Name	Impaired Segments	Facility Type
ILG580055	HARRISTOWN STP	E-05	Domestic Wastewater
IL0075485	ONYX VALLEY LANDFILL-DECATUR	E-05	Industrial
IL0052396	PHILLIPS PIPE LINE-DECATUR TRM	E-05	Industrial
IL0066346	T/CCI MANUFACTURING, LLC	E-05	Industrial
IL0028321	DECATUR SD MAIN STP	E-05, E-06, E-09	Domestic Wastewater
IL0041131	BLUE MOUND STP	E-16	Domestic Wastewater
ILG580167	BUFFALO, DAWSON, MECHANICSBURG	E-16	Industrial
IL0053431	DAWSON WTP	E-16	Water Treatment
IL0054623	MT. AUBURN SCHOOL	E-16	Domestic Wastewater
ILG640055	MT. AUBURN WTP	E-16	Water Treatment
ILG840188	VULCAN CONSTRUCTION MATERIALS	E-16	Industrial
IL0066877	BUCKEYE TERMINALS-HARRISTOWN	ERA-01	Industrial
ILG580149	NIANTIC STP	ERA-01	Domestic Wastewater
ILG580173	STONINGTON STP	EZM-02	Domestic Wastewater

Stormwater from Municipal Separate Storm Sewer System (MS4s) can transport bacteria to surface waterbodies during or shortly after storm events. The MS4 for the Illinois Department of Transportation (IDOT) has a general statewide permit, but is not considered to have a measureable impact on the point source loading. As a result, IEPA did not calculate a WLA for that MS4 in the watersheds. The MS4s in the watershed are listed in Table 5-5 below (from Section 5.2 of the TMDL).

Table 5-5 MS4 Permits in the Middle Sangamon River Watershed

Municipality	MS4 Permit Number	Permit Name	Drainage Area (Sq. Miles)
Decatur	ILR400181	Decatur, City of	44.7
Forsyth	ILR400193	Forsyth, Village of	2.1
Macon County	ILR400262	Macon County, IL	n/a
IDOT	ILR400493	Illinois Dept. of Trans.	n/a

Future growth: There is no reserve capacity set aside because the watershed is not expected to have significant future growth in the near future. IEPA believes any future TMDL modifications would be easily calculated (Section 8.3.1.5 of the TMDL).

Priority ranking: The waters have been identified on the 2016 303(d) list as low priority for TMDL development in the segments above (E-05, -06, -09, -16) for fecal coliform.

EPA finds that the TMDL document submitted by IEPA satisfies all requirements concerning this first element.

2. Description of the Applicable Water Quality Standards and Numeric Water Quality Target

The TMDL submittal must include a description of the applicable State/Tribal water quality standard, including the designated use(s) of the waterbody, the applicable numeric or narrative water quality criterion, and the antidegradation policy. (40 C.F.R. §130.7(c)(1)). EPA needs this information to review the loading capacity determination, and load and wasteload allocations, which are required by regulation.

The TMDL submittal must identify a numeric water quality target(s) – a quantitative value used to measure whether or not the applicable water quality standard is attained. Generally, the pollutant of concern and the numeric water quality target are, respectively, the chemical causing the impairment and the numeric criteria for that chemical (e.g., chromium) contained in the water quality standard. The TMDL expresses the relationship between any necessary reduction of the pollutant of concern and the attainment of the numeric water quality target. Occasionally, the pollutant of concern is different from the pollutant that is the subject of the numeric water quality target (e.g., when the pollutant of concern is phosphorus and the numeric water quality target is expressed as Dissolved Oxygen (DO) criteria). In such cases, the TMDL submittal should explain the linkage between the pollutant of concern and the chosen numeric water quality target.

Comment:

Designated Uses: Section 4.2 of the TMDL states that the designated use for the impaired segments is General Use. General Use is defined by the Illinois Pollution Control Board (IPCB) as a standard that “will protect the state’s water for aquatic life, wildlife, agricultural use, secondary contact use and most industrial uses, and ensure the aesthetic quality of the state’s aquatic environment.” The four segments of the Middle Sangamon River are not supporting their Primary Contact Recreation (PCR) Use (Section 1.2 of the TMDL) and are impaired by fecal coliform. The target used in the TMDL development is the PCR standard which uses the fecal coliform geomean as described below.

Standards: The TMDL submittal states in Section 4.3 that the fecal coliform standard is **200 cfu/100mL geometric mean**, based on a minimum of five samples taken over not more than a 30-day period, and **400 cfu/100mL** shall not be exceeded by more than 10 percent of the samples collected during any 30-day period (collected in the recreational season May through October). (Established in 35 Illinois Administrative Code 302.209(b)). EPA notes that while the TMDL will focus on the geometric mean portion of the water quality standard, both parts of the water quality standards must be met.

EPA finds that the TMDL document submitted by IEPA satisfies all requirements concerning this second element.

3. Loading Capacity - Linking Water Quality and Pollutant Sources

A TMDL must identify the loading capacity of a waterbody for the applicable pollutant. EPA regulations define loading capacity as the greatest amount of a pollutant that a water can receive without violating water quality standards (40 C.F.R. §130.2(f)).

The pollutant loadings may be expressed as either mass-per-time, toxicity or other appropriate measure (40 C.F.R. §130.2(i)). If the TMDL is expressed in terms other than a daily load, e.g., an annual load, the submittal should explain why it is appropriate to express the TMDL in the unit of measurement chosen. The TMDL submittal should describe the method used to establish the cause-and-effect relationship between the numeric target and the identified pollutant sources. In many instances, this method will be a water quality model.

The TMDL submittal should contain documentation supporting the TMDL analysis, including the basis for any assumptions; a discussion of strengths and weaknesses in the analytical process; and results from any water quality modeling. EPA needs this information to review the loading capacity determination, and load and wasteload allocations, which are required by regulation.

TMDLs must take into account *critical conditions* for stream flow, loading, and water quality parameters as part of the analysis of loading capacity. (40 C.F.R. §130.7(c)(1)). TMDLs should define applicable *critical conditions* and describe their approach to estimating both point and nonpoint source loadings under such *critical conditions*. In particular, the TMDL should discuss the approach used to compute and allocate nonpoint source loadings, e.g., meteorological conditions and land use distribution.

Comment:

Methodology - Load duration curves (LDCs) were developed to determine the TMDLs for each of the four segments, using the full range of hydrological conditions at each monitoring site to ensure all flow conditions were considered, including critical conditions. This method includes ranking daily flow values from highest to lowest, computing the percentage of days in the period of record with flows that exceed each daily value, and then plotting daily flow versus the exceedance percentage (x-axis). The curve represents the target value or allowable load, with points above the curve showing actual measured values exceeding the target. Each plot was divided into five flow duration intervals (low flows, dry conditions, mid-range, moist conditions, and high flows). The flow regimes are defined at the 0-10, 10-40, 40-60, 60-90, and 90-100th percentiles.

High flow exceedences more often occur from precipitation-related sources and spring conditions (run-off from upland pastures, cropland with surface manure application) on the left portion of the plot. Non-precipitation related events occur more often in the fall when there are large amounts of cattle access from pastures near streams, or from point sources. Exceedences occur under low flow conditions on the right portion of the plot. The TMDL for each flow regime was established by using the midpoint flow condition multiplied by the concentration target. In the example below for segment E-05, there are exceedences in all flow regimes.

Middle Sangamon River TMDL, Illinois
Decision Document July 2018

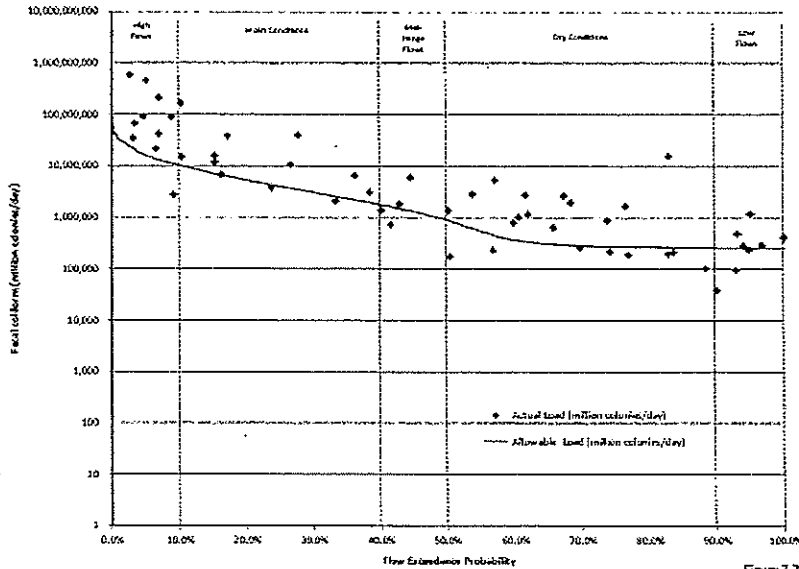


Figure 7-2
Sangamon River (E-05)
Fecal Coliform Load Duration Curve

CDM
Smith

Loading Capacity: The loading capacities are found in Section 8.3.1.6 of the TMDL in Tables 8.6 – 8.9 as shown below. The flow regimes (flow exceedance range) are shown in 10th percentile increments in the tables, whereas the plots in the methodology section are divided into high, moist, midrange, dry and low flow regimes. Significant reductions are needed in both high and low flow conditions. In some locations and flow regimes the calculated pollutant loads were less than the TMDL calculation (0% reduction needed).

Table 8-6 Fecal Coliform TMDL for Sangamon River Segment E-05

Zone	Flow Exceedance Range (%)	LC (mil col/day)	LA (mil col/day)	WLA (mil col/day)	MOS (mil col/day)	RC (mil col/day)	Actual Load ¹ (mil col/day)	Percent Reduction Needed (%)
High	0 - 10	15,549,401	12,255,844	3,293,557	implicit	0	463,775,191	97%
	10 - 20	7,115,672	5,175,355	1,940,317	implicit	0	102,643,850	93%
Moist	20 - 30	3,972,667	2,536,653	1,436,004	implicit	0	33,826,232	88%
	30 - 40	2,333,066	1,160,146	1,172,921	implicit	0	5,871,557	60%
Mid-Range	40 - 50	1,301,113	988,782	312,331	implicit	0	4,741,575	73%
Dry	50 - 60	541,554	0	541,554	implicit	0	4,128,575	67%
	60 - 70	305,828	0	305,828	implicit	0	2,688,573	89%
	70 - 80	271,255	0	271,255	implicit	0	1,426,238	81%
	80 - 90	262,350	0	262,350	implicit	0	10,963,162	98%
Low Flow	90 - 100	255,593	0	255,593	implicit	0	698,862	63%

¹ Actual Load was calculated using the 90th percentile of observed concentrations in a given flow range (EPA 2007)

Middle Sangamon River TMDL, Illinois
Decision Document July 2018

Table 8-7 Fecal Coliform TMDL for Sangamon River Segment E-06

Zone	Flow Exceedance Range (%)	LC (mil col/day)	LA ¹ (mil col/day)	WLA (mil col/day)	MOS (mil col/day)	RC (mil col/day)	Actual Load ² (mil col/day)	Percent Reduction Needed (%)
High	0 - 10	13,180,479	0	13,180,479	Implicit	n/a	221,375,329	94%
Moist	10 - 20	5,774,360	0	5,774,360	Implicit	n/a	11,436,204	50%
	20 - 30	3,014,315	0	3,014,315	Implicit	n/a	2,591,856	0%
	30 - 40	1,574,452	0	1,574,452	Implicit	n/a	578,659	0%
Mid-Range	40 - 50	668,277	0	668,277	Implicit	n/a	1,883,143	65%
Dry	50 - 60	143,859	0	143,859	Implicit	n/a	150,881	5%
	60 - 70	43,035	0	43,035	Implicit	n/a	3,319,159	99%
	70 - 80	15,566	0	15,566	Implicit	n/a	5,192	0%
	80 - 90	7,783	0	7,783	Implicit	n/a	2,389	0%
Low Flow	90 - 100	1,602	0	1,602	implicit	n/a	7,631	79%

¹ All non-point source contributions (LA) attributed to MS4 permitted areas and assigned as WLA

² Actual load was calculated using the 90th percentile of observed concentration in a given flow range (EPA 2007)

Note that in the final TMDL Table 8-8, some load capacities (TMDLs) were changed from the values in the draft TMDL which were based on an error in the calculations for segment E-09. EPA conferred up with IEPA and a new calculation was forwarded by IEPA, based on a changed GIS value for the MS4 that was not incorporated into the original TMDL calculation (personal communication with Abel Haile at IEPA 6/18/18 and 6/26/18). See corrections in Table 8-8 below.¹ High and moist conditions for LA and WLA changed from original values; other values remained the same for the other flow regimes and columns.

Table 8-8 Fecal Coliform TMDL for Sangamon River Segment E-09

Zone	Flow Exceedance Range (%)	LC (mil col/day)	LA (mil col/day)	WLA (mil col/day)	MOS (mil col/day)	RC (mil col/day)	Actual Load ¹ (mil col/day)	Percent Reduction Needed (%)
High	0 - 10	14,289,592	9,312,122	4,977,471	implicit	0	99,449,299	86%
Moist	10 - 20	6,410,742	3,811,551	2,599,190	implicit	0	63,892,095	90%
	20 - 30	3,474,524	1,761,650	1,712,875	implicit	0	4,439,003	22%
	30 - 40	1,942,797	692,284	1,250,513	implicit	0	2,042,282	5%
Mid-Range	40 - 50	978,739	666,408	312,331	implicit	0	57,131,454	98%
Dry	50 - 60	269,153	0	269,153	implicit	0	2,505,695	89%
	60 - 70	48,937	0	48,937	implicit	0	587,684	92%
	70 - 80	16,639	0	16,639	implicit	0	43,867	62%
	80 - 90	8,319	0	8,319	implicit	0	33,830	75%
Low Flow	90 - 100	2,006	0	2,006	implicit	0	695,042	100%

¹ Actual load was calculated using the 90th percentile of observed concentrations in a given flow range (EPA 2007)

¹ Row 0-10 LA is changed to 9,312,122 from 6,786,921; WLA is changed to 4,977,471 from 7,502,671
 10-20 LA is changed to 3,811,551 from 2,777,960; WLA is changed to 2,599,190 from 3,632,782
 20-30 LA is changed to 1,761,650 from 1,283,937; WLA is changed to 1,712,875 from 2,190,587
 30-40 LA is changed to 692,284 from 504,555; WLA is changed to 1,250,513 from 1,438,242

Table 8-9 Fecal Coliform TMDL for Sangamon River Segment E-16

Zone	Flow Exceedance Range (%)	LC (mil col/day)	LA (mil col/day)	WLA (mil col/day)	MOS (mil col/day)	RC (mil col/day)	Actual Load ¹ (mil col/day)	Percent Reduction Needed (%)
High	0 - 10	19,100,774	18,034,026	1,066,749	implicit	0	369,369,961	95%
Moist	10 - 20	8,709,689	7,702,031	1,007,659	implicit	0	33,936,942	74%
	20 - 30	4,837,235	3,851,598	985,637	implicit	0	30,965,469	84%
	30 - 40	2,817,105	1,842,955	974,150	implicit	0	1,814,806	0%
Mid-Range	40 - 50	1,545,650	1,228,072	317,578	implicit	0	3,353,335	54%
Dry	50 - 60	609,806	0	609,806	implicit	0	3,133,695	81%
	60 - 70	319,372	0	319,372	implicit	0	1,482,587	78%
	70 - 80	276,775	0	276,775	implicit	0	696,668	54%
	80 - 90	265,803	0	265,803	implicit	0	249,429	0%
Low Flow	90 - 100	257,478	0	257,478	implicit	0	751,201	66%

¹ Actual Load was calculated using the 90th percentile of observed concentrations in a given flow range (EPA 2007)

Critical Conditions - Sections 8.3.1.2 and 8.3.1.4 of the TMDL state that the critical condition is the recreational period from May through October when most primary contact recreation occurs. The exceedences of standards occur across all flow regimes, and are accounted for by using the LDC methodology. Illinois recognizes that the critical flow may be under not only high flow, but also low flow conditions.

EPA finds IEPA's approach for calculating the loading capacity to be reasonable and consistent with EPA guidance. EPA finds that the TMDL document submitted by IEPA satisfies all requirements concerning this third element.

4. Load Allocations (LAs)

EPA regulations require that a TMDL include LAs, which identify the portion of the loading capacity attributed to existing and future nonpoint sources and to natural background. Load allocations may range from reasonably accurate estimates to gross allotments (40 C.F.R. §130.2(g)). Where possible, load allocations should be described separately for natural background and nonpoint sources.

Comment:

The Load Allocations are shown above in Tables 8-6 through 8-9 from Section 8.3.1.6 of the TMDL. There is a wide range of percentage reductions required based on the various flow regimes.

EPA finds IEPA's approach for calculating the LA to be reasonable and consistent with EPA guidance. EPA finds that the TMDL document submitted by IEPA satisfies all requirements concerning this fourth element.

5. Wasteload Allocations (WLAs)

EPA regulations require that a TMDL include WLAs, which identify the portion of the loading capacity allocated to individual existing and future point source(s) (40 C.F.R. §130.2(h), 40 C.F.R. §130.2(i)). In some cases, WLAs may cover more than one discharger, e.g., if the source is contained within a general permit.

The individual WLAs may take the form of uniform percentage reductions or individual mass based limitations for dischargers where it can be shown that this solution meets WQSs and does not result in localized impairments. These individual WLAs may be adjusted during the NPDES permitting process. If the WLAs are adjusted, the individual effluent limits for each permit issued to a discharger on the impaired water must be consistent with the assumptions and requirements of the adjusted WLAs in the TMDL. If the WLAs are not adjusted, effluent limits contained in the permit must be consistent with the individual WLAs specified in the TMDL. If a draft permit provides for a higher load for a discharger than the corresponding individual WLA in the TMDL, the State/Tribe must demonstrate that the total WLA in the TMDL will be achieved through reductions in the remaining individual WLAs and that localized impairments will not result. All permittees should be notified of any deviations from the initial individual WLAs contained in the TMDL. EPA does not require the establishment of a new TMDL to reflect these revised allocations as long as the total WLA, as expressed in the TMDL, remains the same or decreases, and there is no reallocation between the total WLA and the total LA.

Comment:

The Wasteload Allocations for fecal coliform for the Middle Sangamon River are shown for facility and MS4 point sources in Tables 8-4 and 8-5 below. The WLAs are based upon the Design Average Flow under Low, Dry, and Mid-Range flow regimes, and Design Maximum Flow for the Moist and High flow regimes, multiplied by the fecal coliform geometric mean criteria of 200 org/100 mL (Section 8.3.1.4 of the TMDL). Several WWTPs identified in Table 8-4 below have disinfection exemptions, under which the facility must meet the WQS at a point downstream of the discharge point where recreation may occur. The WLAs are calculated to attain WQSs at the compliance point specified under the exemption (Section 8.3.1.4 of the TMDL). The flows used to calculate the TMDL under moist and high flow conditions also help to ensure there is capacity for growth.

Table 8-4: WLAs for Fecal Coliform from Permitted Discharges in the Middle Sangamon River Watershed

Facility	NPDES Permit Number	Design Average Flow (MGD)	Design Maximum Flow (MGD)	WLA at DAF (mil col/day)	WLA at DMF (mil col/day)	Applicable Stream Segments
SANITARY DISTRICT OF DECATUR	IL0028321	41	125	310,433	946,458	E-05, E-06, E-09, E-16
BLUE MOUND STP	IL0041131	0.18	0.45	1,363	3,407	E-16
MT AUBURN SCHOOL STP	IL0054623	0.0015	0.0038	11	29	E-16
HARRISTOWN STP ¹	ILG580055	0.25	0.625	1,893	4,732	E-05, E-06, E-09, E-16
NIANTIC STP ¹	ILG580149	0.1	0.25	757	1,893	E-16
BUFFALO, DAWSON, MECHANICSBURG ¹	ILG580167	0.2	0.5	1,514	3,786	E-16
STONINGTON STP ¹	ILG580173	0.15	0.375	1,136	2,839	E-16

¹ Facilities with disinfection exemptions

Note that in the final TMDL Table 8-5, the MS4 values were changed from the draft TMDL values which were based on an error in the calculations for segment E-09. EPA conferred with IEPA and a new calculation was forwarded by IEPA, based on to a changed GIS value for the MS4 that was not incorporated into the original TMDL calculation (personal communication with Abel Haile at IEPA 6/18/18 and 6/26/18). See corrections in Table 8-5 below.²

Table 8-5 Fecal Coliform WLA for MS4s in the Middle Sangamon River Watershed

Impaired Segment	MS4 Permit	MS4 Area in Subbasin	Percent of Subbasin Area	WLA by Flow Condition Category and Flow Exceedance Range (mil. col/day)			
				High	Moist		
				0 - 10	10-20	20-30	30-40
E-05	Decatur	12,048	12%	1,784,447	753,530	369,337	168,917
	Forsyth	1,981	2%	293,420	123,905	60,731	27,775
	Macon County	1,786	2%	264,498	111,691	54,745	25,038
	Total	15,815	16%	2,342,366	989,126	484,813	221,730
E-06	Decatur	1,044	100%	13,180,479	5,774,360	3,014,315	1,574,492
	Total	1,044	100%	13,180,479	5,774,360	3,014,315	1,574,492
E-09	Decatur	2,860	30%	4,026,280	1,648,000	761,684	299,323
	Total	2,860	30%	4,026,280	1,648,000	761,684	299,323
E-16	Decatur	1,867	0.6%	103,139	44,049	22,028	10,540
	Total	1,867	0.6%	103,139	44,049	22,028	10,540

Estimates of current loading from MS4s were calculated by subtracting the WLA for NPDES point source dischargers and the margin of safety from the loading capacity of the waterbody to derive the load attributable to stormwater discharges and nonpoint sources. The proportion of developed land within the Middle Sangamon River subbasin and in each impaired segment's watershed

² Row E-09 High flow 0-10 is changed to 4,026,280 from 6,551,481 for WLA
Moist flow 10-20 is changed to 1,648,000 from 2,681,591 for WLA
Moist flow 20-30 is changed to 761,684 from 1,239,397 for WLA
Moist flow 30-40 is changed to 299,323 from 487,052 for WLA

potentially covered under one of the MS4 permit was then calculated using GIS layers for urbanized MS4 areas and multiplied by the segment's interim LA for non-point sources. Note that a separate WLA for the IDOT MS4 was not included as the contributing area from this MS4 in the watershed is very small and not likely to contribute loads of fecal coliform. The resulting value for the remaining MS4s represents an estimate of the proportion of overland runoff load attributable to these systems for each impaired segment. As the MS4 loads are from permitted sources, the MS4 load was then subtracted from the overall LA and added to the WLA calculated for POTWs. MS4 discharges are only operable during periods of active runoff and WLA for MS4s were only applied to the "moist" and "high" flow condition categories.

IEPA did not identify any combined Sewer Overflows (CSOs) or Concentrated Animal Feeding Operations (CAFOs) in the watershed. Therefore, the WLA = 0.

EPA finds IEPA's approach for calculating the WLA to be reasonable and consistent with EPA guidance. EPA finds that the TMDL document submitted by IEPA satisfies all requirements concerning this fifth element.

6. Margin of Safety (MOS)

The statute and regulations require that a TMDL include a margin of safety (MOS) to account for any lack of knowledge concerning the relationship between load and wasteload allocations and water quality (CWA §303(d)(1)(C), 40 C.F.R. §130.7(c)(1)). EPA's 1991 TMDL Guidance explains that the MOS may be implicit, i.e., incorporated into the TMDL through conservative assumptions in the analysis, or explicit, i.e., expressed in the TMDL as loadings set aside for the MOS. If the MOS is implicit, the conservative assumptions in the analysis that account for the MOS must be described. If the MOS is explicit, the loading set aside for the MOS must be identified.

Comment:

Section 8.3.1.3 of the TMDL states that IEPA used an implicit MOS in the methodology by utilizing a more restrictive and conservative portion of the standard where fecal coliform may not exceed the chronic standard of 200 cfu/100ml, rather than the acute single sample maximum of 400 cfu/100 ml.

The MOS also incorporated certain conservative assumptions in the calculation of the TMDLs. No rate of decay, or die-off rate of pathogen species, was used in the TMDL calculations or in the creation of load duration curves for *E. coli*. Bacteria have a limited capability of surviving outside their hosts, which would justify the use of a rate of decay. IEPA determined that it was more conservative to use the geometric mean portion of the WQS (200 cfu/100 mL) and not to apply a rate of decay.

As stated in *EPA's Protocol for Developing Pathogen TMDLs* (EPA 841-R-00-002), many different factors affect the survival of pathogens, including the physical condition of the water. These factors include, but are not limited to sunlight, temperature, salinity, and nutrient deficiencies. These factors vary depending on the environmental condition/circumstances of the water, and therefore it would be difficult to assert that the rate of decay caused by any given combination of these environmental variables was sufficient to meet the WQS of 200 cfu/100 mL. Thus, it is more conservative to apply the State's WQS as the MOS, because this standard must be met at all times under all environmental conditions.

EPA finds IEPA's approach for incorporating the MOS to be reasonable and consistent with EPA guidance. EPA finds that the TMDL document submitted by IEPA satisfies all requirements concerning this sixth element.

7. Seasonal Variation

The statute and regulations require that a TMDL be established with consideration of seasonal variations. The TMDL must describe the method chosen for including seasonal variations. (CWA §303(d)(1)(C), 40 C.F.R. §130.7(c)(1)).

Comment:

Section 8.3.1.2 states that the seasonal variation was implicitly considered for fecal coliform by using the LDC under all expected flow conditions. The seasonal variation is an important consideration to be protective during the primary contact recreational season, so the target must be met from May through October, as shown above in the TMDL methodology and allocation tables.

EPA finds that the TMDL document submitted by IEPA satisfies all requirements concerning this seventh element.

8. Reasonable Assurances

When a TMDL is developed for waters impaired by point sources only, the issuance of a National Pollutant Discharge Elimination System (NPDES) permit(s) provides the reasonable assurance that the wasteload allocations contained in the TMDL will be achieved. This is because 40 C.F.R. 122.44(d)(1)(vii)(B) requires that effluent limits in permits be consistent with "the assumptions and requirements of any available wasteload allocation" in an approved TMDL.

When a TMDL is developed for waters impaired by both point and nonpoint sources, and the WLA is based on an assumption that nonpoint source load reductions will occur, EPA's 1991 TMDL Guidance states that the TMDL should provide reasonable assurances that nonpoint source control measures will achieve expected load reductions in order for the TMDL to be approvable. This

information is necessary for EPA to determine that the TMDL, including the load and wasteload allocations, has been established at a level necessary to implement water quality standards.

EPA's August 1997 TMDL Guidance also directs Regions to work with States to achieve TMDL load allocations in waters impaired only by nonpoint sources. However, EPA cannot disapprove a TMDL for nonpoint source-only impaired waters, which do not have a demonstration of reasonable assurance that LAs will be achieved, because such a showing is not required by current regulations.

Comment:

There are overview and implementation activities in Section 9.1 of the TMDL that include the Nine Minimum Elements (NME); these elements of watershed planning will assist in providing reasonable assurance that impairments are addressed. The NME include many aspects of implementation that would improve the watershed: identifying causes and sources of pollution, estimating reductions, describing the NPS management measures, estimating the technical assistance and costs, including public information, developing a schedule, developing the interim and measureable milestones, identifying indicators to determining the achievement of reductions, and developing a monitoring component for the project. Beyond using those elements, the adaptive management approach will be used in implementation, including both structural (BMPs such as fencing and filter strips) and managerial (tillage or crop rotation) practices, further described below in the implementation section. Monitoring of key response indicators is performed to incorporate the results of implementation actions into future decisions.

For example, in Section 9.3 of the TMDL, IEPA described the benefits that buffer strips could provide in reducing bacteria loads in the watershed. Buffer strips are vegetative strips that are planted along a streambank which can filter out or slow the migration of pollutants into the waterbody. In Figures 9-1 to 9-4 of the TMDL, IEPA identified potential locations where buffer strips could be installed. In Table 9-9, IEPA provided cost estimates of numerous best management practices (BMPs) that could be used in the watershed. This information, along with the location information, will allow stakeholder to determine where various BMPs can be installed and what these BMPs could cost.

EPA finds that the TMDL document submitted by IEPA satisfies all requirements concerning this eighth element.

9. Monitoring Plan to Track TMDL Effectiveness

EPA's 1991 document, *Guidance for Water Quality-Based Decisions: The TMDL Process* (EPA 440/4-91-001), recommends a monitoring plan to track the effectiveness of a TMDL, particularly when a TMDL involves both point and nonpoint sources, and the WLA is based on an assumption that nonpoint source load reductions will occur. Such a TMDL should provide assurances that nonpoint source controls will achieve expected load reductions and, such TMDL should include a monitoring plan that describes the additional data to be collected to determine if the load

reductions provided for in the TMDL are occurring and leading to attainment of water quality standards.

Comment:

Section 9.2 of the TMDL describes the importance of monitoring the effectiveness of BMPs and other actions in the watershed. Monitoring plans include both short-term and long-term monitoring activities, and are part of the Adaptive Management strategies. The monitoring provides assessment and guides future decisions to continually improve management policies. Defining characteristics of adaptive management include: acknowledging uncertainty, thoughtful assessment and design, implementation of a plan of action, monitoring of key response indicators, and analysis to consider the impact of management on the original objectives.

Monitoring of discharges, stream segments and storm events, storm sewer surveys, and intensive basin surveys (every five years) will occur. Contributors of data used by the IEPA to assess the streams include the Ambient Water Quality Monitoring Network, the Pesticide Monitoring Subnetwork, Facility-Related Stream Surveys, Intensive Basin Surveys, and the Fish Contaminant Monitoring Program. The majority of data used for this TMDL is from the Ambient Water Quality and Intensive Basin Surveys. The Ambient Water Quality Network includes 213 fixed stream stations statewide that are sampled every 6 weeks. Additional data are collected during Intensive Basin Surveys, which typically include approximately 100 basin-specific stations per year and are conducted on a 5-year cycle.

The IEPA has described several milestones in monitoring and implementation, including: funding, implementing short-term projects, monitoring, holding annual stakeholder meetings, implementing larger projects, and education and outreach. The tracking will determine the extent of implementation, establish a baseline, measure voluntary efforts, support workload and cost analysis for regulatory management, and determine proper maintenance and operation (Section 9.10.1 and 9.10.2 of the TMDL).

EPA finds that the TMDL document submitted by IEPA satisfies all requirements concerning this ninth element.

10. Implementation

EPA policy encourages Regions to work in partnership with States/Tribes to achieve nonpoint source load allocations established for 303(d)-listed waters impaired by nonpoint sources. Regions may assist States/Tribes in developing implementation plans that include reasonable assurances that nonpoint source LAs established in TMDLs for waters impaired solely or primarily by nonpoint sources will in fact be achieved. In addition, EPA policy recognizes that other relevant watershed management processes may be used in the TMDL process. EPA is not required to and does not approve TMDL implementation plans.

Comment:

The TMDL provides many suggestions for implementation activities to reduce fecal coliform, including point source controls such as disinfection. A number of point source discharges in the watershed have exemptions from disinfection. STPs with exemptions are Harristown, Niantic, Buffalo/Dawson/Mechanicsburg, and Stonington. Disinfection exemptions are granted where the permittee has shown that the receiving water has average depths of two feet or less and no pronounced deep pools during the summer season; contains physical obstacles that prevent access for primary contact activities; or has adjacent land uses that discourage primary contact activities. However, the facility must still comply with standards at locations downstream in receiving waters where persons may have access, as well as continue monitoring during the recreational months from May to October.

Section 9.6 of the TMDL includes detailed information regarding BMPs to control nonpoint sources, including the pricing of filter strips, the type of riparian buffer cover, types of fencing, water tanks, water and sediment control basins, terracing, bank and grade stabilization, grassed waterways, various tilling practices, and septic system maintenance. GIS has been utilized to assist in quantifying the location and width of filter strips. A private sewage disposal system inspection and maintenance program, and the restriction of livestock access to streams, should be utilized to achieve standards.

Education and funding mechanisms are discussed in Sections 9.7 and 9.8 of the TMDL, respectively. The funding mechanisms include Illinois Section 319(h) of the Clean Water Act funding, whereby Illinois EPA receives federal funds, contributing to as much as 60% of the total cost. The Conservation Reserve Program gets funding from the Food & Security Act of 1985 to remove environmentally sensitive land from agricultural production if the owner meets certain requirements for eligible land. The Conservation Stewardship Program is used to improve soil quality, water quality and quantity, air quality, habitat quality and energy. Funds are available for eligible lands include agricultural lands, cropland, grassland, pastureland, rangeland and non-industrial private forest land. The Grassland Reserve Program prevents grazing and pasture from being converted into cropland or for urban development. The Agricultural Conservation Easement Program is used to conserve agricultural lands and wetlands. Lands protected by the easements provide environmental quality, historic preservation, wildlife habitat, and protection of open space. For wetlands, these easements protect fish and wildlife habitat, filter sediments and chemicals, reduce flooding, recharge of groundwater, and protect biological diversity. The Environmental Quality Incentive Program provides funding for conservation practices, and may provide up to 75% funding for the practices to be put into place. Illinois has provided timelines for acquiring funds, implementing short- and long-term projects, monitoring, holding stakeholder meetings, and providing education and outreach. IEPA provides local contact information for many of these entities in Section 9.8.3 of the TMDL. Citizens have provided IEPA with locations where severe erosion has occurred (Section 9.4 of the TMDL).

EPA reviews, but does not approve, implementation plans.

11. Public Participation

EPA policy is that there should be full and meaningful public participation in the TMDL development process. The TMDL regulations require that each State/Tribe must subject calculations to establish TMDLs to public review consistent with its own continuing planning process (40 C.F.R. §130.7(c)(1)(ii)). In guidance, EPA has explained that final TMDLs submitted to EPA for review and approval should describe the State's/Tribe's public participation process, including a summary of significant comments and the State's/Tribe's responses to those comments. When EPA establishes a TMDL, EPA regulations require EPA to publish a notice seeking public comment (40 C.F.R. §130.7(d)(2)). Provision of inadequate public participation may be a basis for disapproving a TMDL. If EPA determines that a State/Tribe has not provided adequate public participation, EPA may defer its approval action until adequate public participation has been provided for, either by the State/Tribe or by EPA.

Comment:

The TMDL was public noticed from September 27, 2017, to October 27, 2017. Copies of the draft TMDL were made available upon request, at the Illinois EPA and on IEPA's Internet web site at <http://www.epa.state.il.us/public-notices>. IEPA held a public meeting on September 27, 2017, at the Richland Community College, the National Sequestration Education Center in Decatur, Illinois. The public was informed that the TMDL could be accessed in hard copy at the Decatur Public Library or Harristown Village Hall. Comments received via e-mail, and IEPA's responses, are included in Appendix E. Once commenter informed IEPA that there were riparian habitat stressors at certain locations and commented on the importance of preserving habitat. Another comment was from a point source operator specifically requesting clarification of details of its permit and obligations related to the TMDL, Load Reduction Strategy, and BMPs. There were also verbal comments at the public notice meeting and some of those were addressed and incorporated into the final TMDL. EPA determined that the IEPA adequately responded to the comments.

EPA finds that the TMDL document submitted by IEPA satisfies all requirements concerning this eleventh element.

12. Submittal Letter

A submittal letter should be included with the TMDL submittal, and should specify whether the TMDL is being submitted for a technical review or final review and approval. Each final TMDL submitted to EPA should be accompanied by a submittal letter that explicitly states that the submittal is a final TMDL submitted under Section 303(d) of the Clean Water Act for EPA review and approval. This clearly establishes the State's/Tribe's intent to submit, and EPA's duty to review, the TMDL under the statute. The submittal letter, whether for technical review or final review and approval, should contain such identifying information as the name and location of the waterbody, and the pollutant(s) of concern.

Comment:

EPA received the Middle Sangamon River Watershed TMDL on June 12, 2018, accompanied by a submittal letter dated June 12, 2018. In the submittal letter, IEPA stated “Illinois is submitting the Middle Sangamon River Watershed TMDL for USEPA’s final approval.” The letter states that the Middle Sangamon River is impaired on Illinois’ 2016 303(d) list. Primary Contact Use is impaired due to fecal coliform.

EPA finds that the TMDL document submitted by IEPA satisfies all requirements concerning this twelfth element.

13. Conclusion

After a full and complete review, EPA finds that the four TMDLs for the Middle Sangamon River Watershed (segments E-05, E-06, E-09 and E-16) for fecal coliform satisfy all of the elements of an approvable TMDL.

The EPA’s approval of these TMDLs extends to the waterbodies which are identified in Table 1 of this Decision Document.

ERRATA SHEET

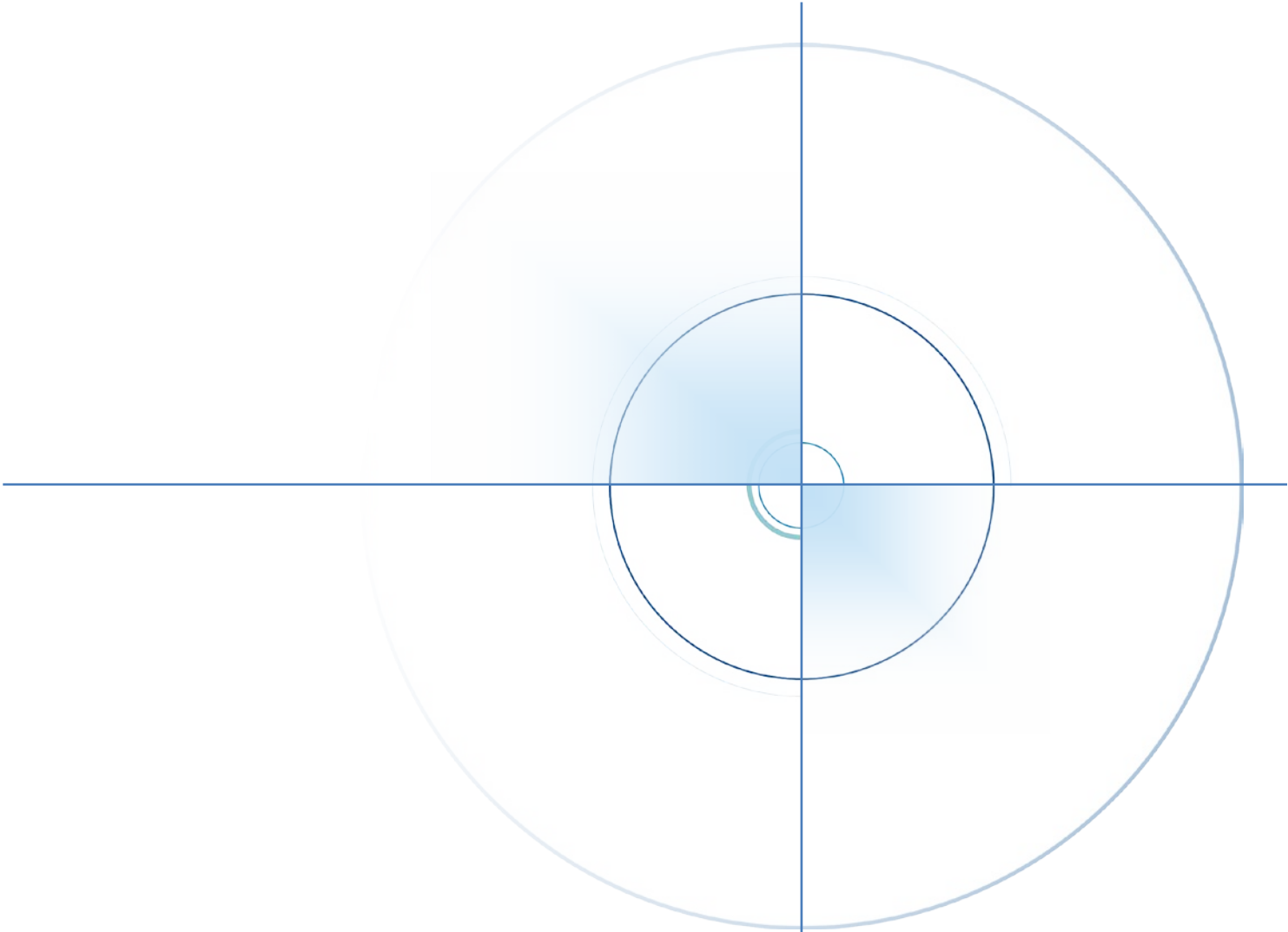
Corrections for the IEPA's Middle Sangamon River Watershed Final Draft TMDL Report dated May 2018

Note that in the final TMDL Tables 8-5 and 8-8 (Refer to Section 8.3.1.4 – Waste Load Allocation and Section 8.3.1.6 - Load Allocation and TMDL Summary in the Report), the MS4 values were changed from the draft TMDL values which were based on an error in the calculations for segment E-09. EPA followed up with IEPA and a new calculation was forwarded by IEPA, due to a changed GIS value for the MS4 that was not incorporated into the initial TMDL calculation (personal communication with Abel Haile at IEPA 6/18/18 and 6/26/18).

Correct values are highlighted in yellow.

Table 8-5 Seg E-09	WLA correction	WLA initial values
Row 0-10	WLA 4,026,280	WLA 6,551,481
Row 10-20	WLA 1,648,000	WLA 2,681,591
Row 20-30	WLA 761,684	WLA 1,239,397
Row 30-40	WLA 299,323	WLA 487,052

Table 8-8 Seg E-09	LA correction	LA initial values	WLA correction	WLA initial values
Row 0-10	LA 9,312,122	LA 6,786,921	WLA 4,977,471	WLA 7,502,671
Row 10-20	LA 3,811,551	LA 2,777,960	WLA 2,599,190	WLA 3,632,782
Row 20-30	LA 1,761,650	LA 1,283,937	WLA 1,712,875	WLA 2,190,587
Row 30-40	LA 692,284	LA 504,555	WLA 1,250,513	WLA 1,438,242



Middle Sangamon River
Watershed
Final TMDL Report

Prepared for Illinois EPA



July 2018



Table of Contents

Section 1 Goals and Objectives for the Middle Sangamon River Watershed

1.1	Total Maximum Daily Load Overview.....	1-1
1.2	TMDL Goals and Objectives for the Middle Sangamon River Watershed.....	1-2
1.3	Report Overview	1-4

Section 2 Middle Sangamon River Watershed Description

2.1	Middle Sangamon River Watershed Location	2-1
2.2	Topography.....	2-1
2.3	Land Use	2-1
2.4	Soils.....	2-2
2.4.1	Middle Sangamon River Watershed Soil Characteristics.....	2-3
2.5	Population.....	2-4
2.6	Climate, Pan Evaporation, and Streamflow	2-4
2.6.1	Climate.....	2-4
2.6.2	Pan Evaporation	2-5
2.6.3	Streamflow.....	2-5

Section 3 Middle Sangamon River Watershed Public Participation

3.1	Middle Sangamon River Watershed Public Participation and Involvement.....	3-1
-----	---	-----

Section 4 Middle Sangamon River Watershed Water Quality Standards

4.1	Illinois Water Quality Standards.....	4-1
4.2	Designated Uses	4-1
4.2.1	General Use.....	4-1
4.3	Illinois Water Quality Standards for Impaired Waterbodies in the Middle Sangamon River Watershed	4-1
4.4	Water Quality Targets.....	4-2
4.5	Potential Pollutant Sources	4-3

Section 5 Middle Sangamon River Watershed Characterization

5.1	Water Quality Data.....	5-1
5.1.1	Stream Water Quality Data.....	5-1
5.1.2	Fecal Coliform.....	5-2
5.1.3	Dissolved Oxygen.....	5-3
5.1.4	Siltation/Sedimentation	5-4
5.2	Point Sources	5-4
5.3	Nonpoint Sources	5-6
5.3.1	Crop Information	5-6
5.3.2	Animal Operations.....	5-7
5.3.3	Septic Systems.....	5-8
5.4	Watershed Studies and Other Watershed Information.....	5-9

Section 6 Approach to Developing TMDL and Identification of Data Needs

6.1 Simple and Detailed Approaches for Developing TMDLs..... 6-1

6.2 Additional Data Needs for TMDL Development in the Middle Sangamon River Watershed..... 6-1

6.3 Approaches for Developing TMDLs and LRSs for Stream Segments in Middle Sangamon River Watershed..... 6-3

6.3.1 Recommended Approach for Fecal Coliform TMDLs in the Sangamon River..... 6-3

6.3.2 Recommended Approach for DO TMDLs in Buckhart Creek..... 6-3

6.3.3 Recommended Approach for Siltation/Sedimentation Evaluation..... 6-3

Section 7 Methodology Development for the Middle Sangamon River Watershed

7.1 Methodology Overview 7-1

7.1.1 Load-Duration Curve Overview 7-1

7.2 Methodology Development..... 7-2

7.2.1 Load-Duration Curve Development 7-2

7.2.1.1 Watershed Delineation and Flow Estimation..... 7-2

7.2.1.2 Fecal Coliform in Sangamon River Segments E-05, E-06, E-09, and E-16..... 7-3

7.2.1.3 Sedimentation and Siltation in Long Point Slough (ERA-01) and Buckhart Creek (EZM-02) 7-4

Section 8 Total Maximum Daily Loads for the Middle Sangamon River Watershed

8.1 TMDL Endpoints for the Middle Sangamon River Watershed..... 8-1

8.2 Pollutant Sources and Linkages..... 8-1

8.3 TMDL Allocation..... 8-2

8.3.1 TMDL for Fecal Coliform in Sangamon River Segments E-05, E-06, E-09, and E-16..... 8-3

8.3.1.1 Target Loading Capacity 8-3

8.3.1.2 Seasonal Variation..... 8-3

8.3.1.3 Margin of Safety..... 8-3

8.3.1.4 Waste Load Allocation 8-3

8.3.1.5 Reserve Capacity 8-6

8.3.1.6 Load Allocation and TMDL Summary 8-6

8.3.2 LRS for Sedimentation and Siltation in Streams..... 8-8

8.3.2.1 Target Loading Capacity 8-8

8.3.2.2 Seasonal Variation..... 8-9

8.3.2.3 Percent Reduction and LRS Summary 8-9

Section 9 Implementation Plan for the Middle Sangamon River Watershed

9.1 Implementation Overview 9-1

9.2 Adaptive Management..... 9-1

9.3 BMP Recommendations for Reducing Fecal Coliform in Streams in the Middle Sangamon River Watershed..... 9-2

9.3.1 NPDES Permitted Point Sources of Fecal Coliform..... 9-3

9.3.2 Nonpoint Sources of Fecal Coliform..... 9-4

9.4 BMP Recommendations for Sedimentation/Siltation in the Middle Sangamon River Watershed..... 9-8

9.5	BMP Recommendations for Improving DO in Buckhart Creek.....	9-13
9.6	Cost Estimates of BMPs.....	9-13
9.6.1	Filter Strips and Riparian Buffers.....	9-13
9.6.2	Livestock and Wildlife Exclusion.....	9-14
9.6.3	Water and Sediment Control Basins.....	9-14
9.6.4	Terraces.....	9-14
9.6.5	Bank Stabilization/Erosion Control.....	9-15
9.6.6	Grassed Waterways.....	9-15
9.6.7	Conservation Tillage.....	9-15
9.6.8	Septic System Maintenance.....	9-15
9.7	Information and Education.....	9-16
9.8	Project Funding.....	9-17
9.8.1	Available State-Level Programs for Nonpoint Sources.....	9-17
9.8.1.1	Conservation Practices Cost-Share Program.....	9-17
9.8.1.2	Streambank Stabilization and Restoration Program.....	9-17
9.8.2	Available Federal-Level Programs for Nonpoint Sources.....	9-17
9.8.2.1	Clean Water Act Section 319 Grants.....	9-18
9.8.2.2	Conservation Reserve Program.....	9-18
9.8.2.3	Conservation Stewardship Program.....	9-20
9.8.2.4	Grassland Reserve Program.....	9-20
9.8.2.5	Agricultural Conservation Easement Program.....	9-21
9.8.2.6	Environmental Quality Incentive Program.....	9-23
9.8.3	Local Program Contact Information.....	9-24
9.9	Planning Level Cost Estimates for Implementation Measures.....	9-25
9.10	Milestones and Monitoring.....	9-26
9.10.1	Interim Measurable Milestones and Schedule.....	9-26
9.10.2	Monitoring Plan.....	9-27
9.10.3	Success Criteria.....	9-28
Section 10 References.....		10-1

Appendices

- Appendix A – Land Use Categories
- Appendix B – Soil Characteristics
- Appendix C – Water Quality Data
- Appendix D – Load Duration Curve Documentation
- Appendix E – Public Comments
- Appendix F – Responsiveness Summary

List of Tables

1-1	Impaired Waterbodies in Middle Sangamon River Watershed.....	1-3
2-1	Land Cover and Land Use in Middle Sangamon River Watershed	2-2
2-2	Average Monthly Climate Data in Decatur, Illinois	2-5
2-3	Streamflow Gages used for Middle Sangamon River Watershed TMDL Assessment	2-5
4-1	Summary of Numeric Water Quality Standards for Potential Causes of Impairments in Middle Sangamon River Watershed	4-2
4-2	Potential Pollutant Sources for Impaired Waterbodies in the Middle Sangamon River Watershed.....	4-3
5-1	Existing Fecal Coliform Data for Sangamon River Watershed Impaired Stream Segments	5-3
5-2	Existing Dissolved Oxygen Data for Buckhart Creek Segment EZM-02; Monitoring Locations EZM-01, EZM-02, and EZM-07	5-4
5-3	Existing NVSS Data for Stream Segments Impaired by Excess Sedimentation/Siltation	5-4
5-4	Permitted Facilities Discharging to or Upgradient of Impaired Segments in the Middle Sangamon River Watershed	5-5
5-5	MS4 Permits in the Middle Sangamon River Watershed.....	5-5
5-6	Tillage Practices in Macon County	5-6
5-7	Tillage Practices in Christian County	5-6
5-8	Tillage Practices in Sangamon County.....	5-6
5-9	Christian County Animal Population (2007 & 2013 Census of Agriculture)	5-7
5-10	Macon County Animal Population (2007 & 2013 Census of Agriculture).....	5-8
5-11	Sangamon County Animal Population (2007 & 2013 Census of Agriculture).....	5-8
6-1	Data Availability and Data Needs for TMDL Development in the Middle Sangamon River Watershed	6-2
7-1	Impaired Waterbodies in Middle Sangamon River Watershed and Assessment Methodologies.....	7-1
7-2	Watershed Areas, Surrogate Gages, and Watershed Area Ratios for Load Duration Curve Assessments in the Middle Sangamon River Watershed	7-3
8-1	TMDL Endpoints and Average Observed Concentrations for Impaired Constituents in the Middle Sangamon River Watershed	8-1
8-2	Example Source Area/Hydrologic Condition Considerations (USPA, 2007)	8-2
8-3	Estimated Fecal Coliform Loading Capacities under Various Flow Conditions in the Middle Sangamon River	8-3
8-4	WLAs for Fecal Coliform from Permitted Discharges in the Middle Sangamon River Watershed.....	8-5
8-5	Fecal Coliform WLA for MS4s in the Middle Sangamon River Watershed.....	8-5
8-6	Fecal Coliform TMDL for Sangamon River Segment E-05.....	8-6
8-7	Fecal Coliform TMDL for Sangamon River Segment E-06.....	8-7
8-8	Fecal Coliform TMDL for Sangamon River Segment E-09.....	8-7
8-9	Fecal Coliform TMDL for Sangamon River Segment E-16.....	8-8
8-10	NVSS Target Loading Capacities in the Streams under Various Flow Conditions in the Middle Sangamon River Watershed	8-8
8-11	LRS Targets for NVSS in Long Point Slough (ERA-01).....	8-9

8-12	LRS Targets for NVSS in Buckhart Creek (EZM-02)	8-10
9-1	WLAs for NPDES Permitted Municipal Treatment Facility Discharges in the Middle Sangamon Watersheds	9-3
9-2	Filter Strip Flow Lengths Based on Land Slope	9-4
9-3	Average Slopes, Filter Strip Flow Length, Total Buffer Area, and Area of Agricultural Land Buffers Potentially Suitable for Conversion for Filter Strips for Mitigation of Fecal Coliform, by Impaired Stream Segment	9-5
9-4	Average Slopes, Filter Strip Flow Length, Total Buffer Area, and Area of Agricultural Land Buffers Potentially Suitable for Conversion for Filter Strips to Mitigate Sedimentation/Siltation Impairments, by Impaired Stream Segment	9-9
9-5	Total Area and Area of Grassland, Forest, and Agricultural Land Within 25-Foot Buffer, by Stream Segment, Long Slough Point and Buckhart Creek.....	9-10
9-6	Cultivated Areas for the ERA-01 and EZM-02 Impaired Stream Segments	9-10
9-7	Local SWCD, NRCS, FSA, and IDA Contact Information	9-24
9-8	Cost Estimates of Various BMP Measures	9-25
9-9	Implementation Measures	9-27

List of Figures

1-1	Middle Sangamon River TMDL Watershed.....	1-5
2-1	Middle Sangamon River Watershed Elevation.....	2-7
2-2	Middle Sangamon River Watershed Land Use	2-9
2-3	Middle Sangamon River Watershed Soils.....	2-11
2-4	Middle Sangamon River Active USGS Gages.....	2-13
2-5	Middle Sangamon River Watershed Average Daily Streamflow by Month.....	2-15
5-1	Middle Sangamon River Water Quality Stations	5-11
5-2	Fecal Coliform Sangamon River Segment E-05.....	5-13
5-3	Fecal Coliform Sangamon River Segment E-06.....	5-15
5-4	Fecal Coliform Sangamon River Segment E-09.....	5-17
5-5	Fecal Coliform Sangamon River Segment E-16.....	5-19
5-6	Dissolved Oxygen Buckhart Creek Segment (EZM-02).....	5-21
5-7	NVSS Concentrations Long Point Slough (ERA-01) and Buckhart Creek (EMZ-02)....	5-23
5-8	Middle Sangamon River NPDES Locations.....	5-25
7-1	Middle Sangamon River Subbasin Delineation for Flow Calculations	7-5
7-2	Sangamon River (E-05) Fecal Coliform Load Duration Curve.....	7-7
7-3	Sangamon River (E-06) Fecal Coliform Load Duration Curve.....	7-9
7-4	Sangamon River (E-09) Fecal Coliform Load Duration Curve.....	7-11
7-5	Sangamon River (E-16) Fecal Coliform Load Duration Curve.....	7-13
7-6	Long Point Slough (ERA-01) Non-volatile Suspended Solids Load Duration Curve....	7-15
7-7	Buckhart Creek (EZM-02) Non-volatile Suspended Solids Load Duration Curve...	7-17
8-1	Facilities with Disinfection Exemptions.....	8-11
9-1	Buffer Areas and Agricultural Lands for Filter Strips- Middle Sangamon River Segment E-16.....	9-29

9-2	Buffer Areas and Agricultural Lands for Filter Strips- Middle Sangamon River Segment E-05.....	9-31
9-3	Buffer Areas and Agricultural Lands for Filter Strips- Middle Sangamon River Segment E-09.....	9-33
9-4	Buffer Areas and Agricultural Lands for Filter Strips- Middle Sangamon River Segment E-06.....	9-35
9-5	Buffer Areas and Agricultural Lands for Filter Strips- Long Point Slough Segment ERA-01.....	9-37
9-6	Buffer Areas and Agricultural Lands for Filter Strips- Buckhart Creek Segment EZM-02.....	9-39

Acronyms

ACEP	Agricultural Conservation Easement Program
BOD	biochemical oxygen demand
BMPs	best management practices
CBOD	carbonaceous biochemical oxygen demand
CDL	Cropland Data Layer
cfs	cubic feet per second
cfu	colony forming units
CPP	Conservation Practices Cost-Share Program
CRP	Conservation Reserve Program
CSP	Conservation Stewardship Program
CWA	Clean Water Act
DAF	design average flow
DMF	design maximum flow
DO	dissolved oxygen
EQIP	Environmental Quality Incentives Program
FSA	Farm Service Agency
GIS	geographic information system
GRP	Grassland Reserve Program
IDA	Illinois Department of Agriculture
Illinois EPA	Illinois Environmental Protection Agency
IPCB	Illinois Pollution Control Board
ISWS	Illinois State Water Survey
LA	load allocation
LC	loading capacity
LRS	load reduction strategy
MGD	million gallons per day
mg/L	milligrams per liter
mL	milliliters
MOS	margin of safety
MS4	municipal separate storm sewer
NASS	National Agricultural Statistics Service
NCDC	National Climatic Data Center
NED	National Elevation Dataset
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NVSS	non-volatile suspended solids
POTW	publicly owner treatment works
RC	reserve capacity
SOD	sediment oxygen demand
SSRP	Streambank Stabilization and Restoration Program
SSURGO	Soil Survey Geographic
STORET	USEPA's Storage and Retrieval
SWCD	Soil and Water Conservation District
TMDL	total maximum daily load
TSS	total suspended solids
TVS	total volatile solids
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USGS	U.S. Geological Survey

USLE	Universal Soil Loss Equation
WASCOB	water and sediment control basin
WLA	waste load allocation
WREP	Wetland Reserve Enhancement Partnership

This page intentionally left blank.

Section 1

Goals and Objectives for the Middle Sangamon River Watershed

1.1 Total Maximum Daily Load Overview

A total maximum daily load, or TMDL, is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards. TMDLs are a requirement of Section 303(d) of the Clean Water Act (CWA). To meet this requirement, the Illinois Environmental Protection Agency (Illinois EPA) must identify waterbodies not meeting water quality standards following the state's 305(b) monitoring and assessment methodology and then establish TMDLs for restoration of water quality. Illinois EPA develops a list known as the "303(d) list" of waterbodies not meeting water quality standards every 2 years, and it is included in the Integrated Water Quality Report. The Integrated Water Quality Report includes both the 305(b) monitoring and assessment methodology as well as the 303(d) list of impaired waters. Waterbodies on the 303(d) list are then targeted for TMDL development. The Illinois EPA's most recent Draft 2016 Integrated Water Quality Report was submitted to the United States Environmental Protection Agency (USEPA) in July 2016. In accordance with USEPA's guidance, the report assigns all waters of the state to one of five categories. 303(d) listed waterbodies make up category five in the integrated report (Appendix A of the Integrated Report).

In general, a TMDL is a quantitative assessment of water quality impairments, contributing sources, and pollutant reductions needed to attain water quality standards. The TMDL specifies the amount of pollutant or other stressor that needs to be reduced to meet water quality standards, allocates pollutant control or management responsibilities among sources in a watershed, and provides a scientific and policy basis for taking actions needed to restore a waterbody.

Water quality standards are laws or regulations that states authorize to enhance water quality and protect public health and welfare. Water quality standards provide the foundation for accomplishing two of the principal goals of the CWA. These goals are:

- Restore and maintain the chemical, physical, and biological integrity of the nation's waters; and
- Where attainable, to achieve water quality that promotes protection and propagation of fish, shellfish, and wildlife, and provides for recreation in and on the water.

Water quality standards consist of three elements:

- The designated beneficial use or uses of a waterbody or segment of a waterbody
- The water quality criteria necessary to protect the use or uses of that particular waterbody

- An antidegradation policy

Examples of designated uses are primary contact (swimming), protection of aquatic life, and public and food processing water supply. Water quality criteria describe the quality of water that will support a designated use. Water quality criteria can be expressed as numeric limits or as a narrative statement. Antidegradation policies are adopted so that water quality improvements are conserved, maintained, and protected.

1.2 TMDL Goals and Objectives for the Middle Sangamon River Watershed

The Illinois EPA has a three-stage approach to TMDL development. The stages are:

Stage 1 – Watershed Characterization, Data Analysis, Methodology Selection

Stage 2 – Data Collection (optional)

Stage 3 – Model Calibration, TMDL Scenarios, Implementation Plan

This report presents all stages of TMDL development for the Middle Sangamon River watershed. Stage 1 was completed in 2014. Data collection under Stage 2 was performed by Illinois EPA in 2015. Stage 3 documentation was completed in 2016.

Following are the impaired waterbody segments in the Middle Sangamon River watershed:

- Sangamon River (E-05, E-06, E-09, and E-16)
- Long Point Slough (ERA-01)
- Buckhart Creek (EZM-02)

These impaired waterbody segments are shown on **Figure 1-1**. There are six impaired waterbody segments within the Middle Sangamon River watershed that have TMDLs and/or a load reduction strategy (LRS) addressed in this report. **Table 1-1** lists the waterbody segment, waterbody size, and potential causes and sources of impairment for the waterbody.

Table 1-1 Impaired Waterbodies in Middle Sangamon River Watershed

Segment ID	Segment Name	Potential Causes of Impairment	Designated Use	Potential Sources (as identified by the 2016 303(d) list)
E-05	Sangamon River	Fecal Coliform	Primary Contact Recreation	Sources Unknown
E-06	Sangamon River	Fecal Coliform	Primary Contact Recreation	Sources Unknown
E-09	Sangamon River	Fecal Coliform	Primary Contact Recreation	Sources Unknown
E-16	Sangamon River	Fecal Coliform	Primary Contact Recreation	Sources Unknown
ERA-01	Long Point Slough	<i>Sedimentation/Siltation</i>	Aquatic Life	Channelization
EZM-02	Buckhart Creek	Dissolved Oxygen¹	Aquatic Life	Channelization
		<i>Sedimentation/Siltation</i>	Aquatic Life	Channelization and Crop Production

Bold Causes of Impairment have numeric water quality standards and TMDL development was pursued. 1A TMDL for Dissolved Oxygen was not developed after Stage 2 data collection showed that impairment no longer exists (see further discussion in Sections 5-8). Italicized Causes of Impairment do not have numeric water quality standards and an LRS was developed.

Illinois EPA has previously only developed TMDLs for parameters that have numeric water quality standards. For potential causes that do not have numeric water quality standards as noted in **Table 1-1**, TMDLs were not developed. However, LRSs (similar to TMDLs) were developed for these impairments based on target values established by Illinois EPA.

The TMDLs for the segments listed above specify the following elements:

- Loading Capacity (LC) or the maximum amount of pollutant loading a waterbody can receive without violating water quality standards
- Waste Load Allocation (WLA) or the portion of the TMDL allocated to existing or future point sources
- Load Allocation (LA) or the portion of the TMDL allocated to existing or future nonpoint sources and natural background
- Margin of Safety (MOS) or an accounting of uncertainty about the relationship between pollutant loads and receiving water quality
- Reserve Capacity (RC) or a portion of the load explicitly set aside to account for growth in the watershed

These elements are combined into the following equation:

$$\text{TMDL} = \text{LC} = \Sigma\text{WLA} + \Sigma\text{LA} + \text{MOS} + \text{RC}$$

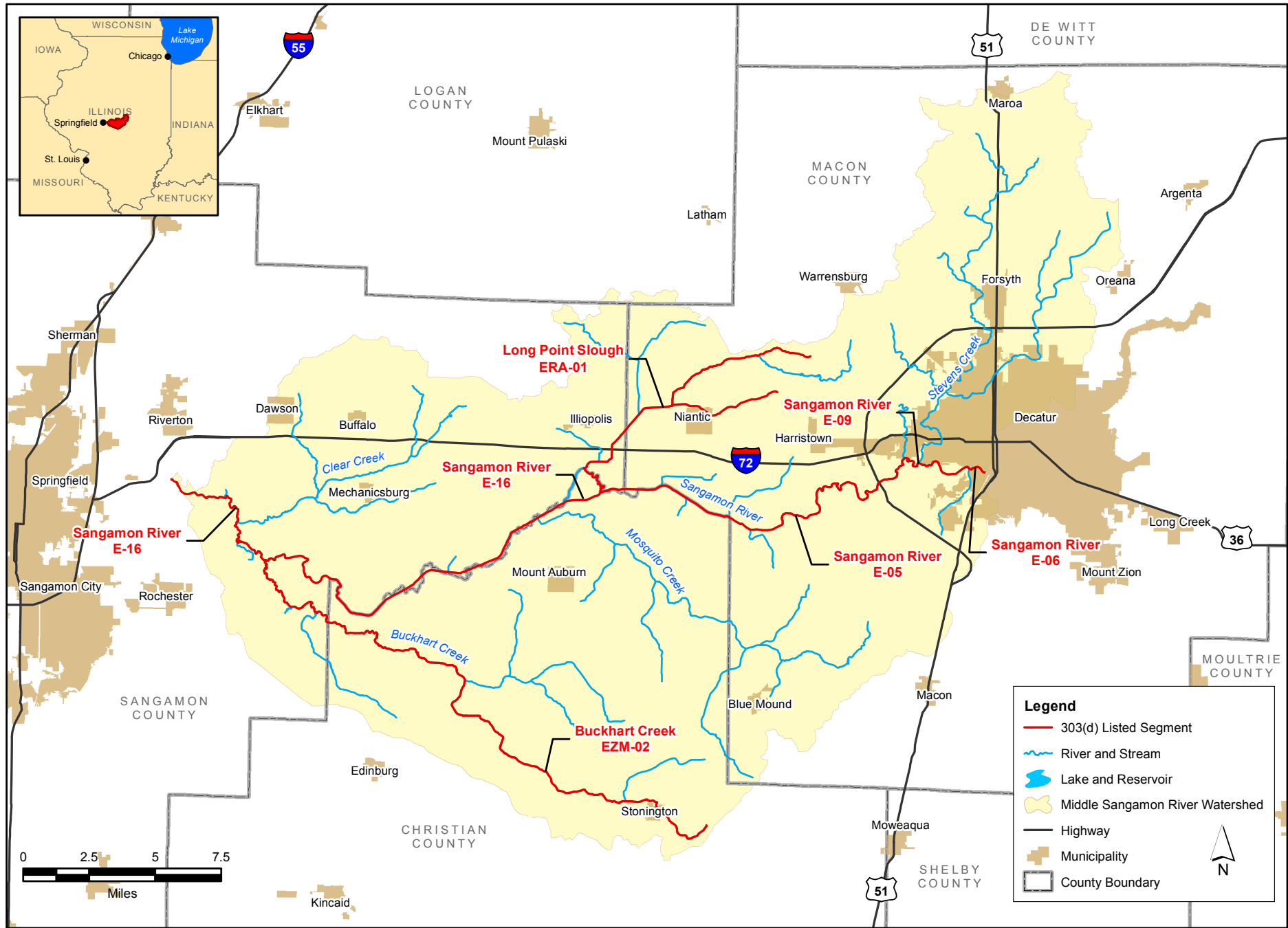
As part of the TMDL development process, Illinois EPA started to include LRSs in TMDL watershed projects in 2012 for those pollutants that do not currently have numeric water quality standards. Developing an LRS involves determining the LC and load reduction that is needed in order for the waterbody to meet “Full Use Support” for its designated uses. In an LRS, the LC is

not divided into WLA, LA, or MOS. These TMDL components are represented by one number as a target concentration for load reduction within each unique watershed. The LRS provides guidance (with no regulatory requirements) for voluntary nonpoint source reduction efforts by implementing agricultural and urban stormwater best management practices (BMPs). TMDL and LRS development also takes into account the seasonal variability of pollutant loads so that water quality standards are met during all seasons of the year. Also, reasonable assurance that the TMDL and LRS targets will be achieved is described in the implementation plan. The implementation plan for the Middle Sangamon Rivers watershed describes how water quality standards and targets will be met and attained. This implementation plan includes recommendations for implementing BMPs, cost estimates, institutional needs to implement BMPs and controls throughout the watershed, and a timeframe for completion of implementation activities.

1.3 Report Overview

The remaining sections of this report contain:

- **Section 2 Middle Sangamon River Watershed Characteristics** provides a description of the watershed's location, topography, geology, land use, soils, population, and hydrology.
- **Section 3 Public Participation and Involvement** discusses public participation activities that occur throughout TMDL development.
- **Section 4 Middle Sangamon River Watershed Water Quality Standards** defines the water quality standards for the impaired waterbodies.
- **Section 5 Middle Sangamon River Watershed Characterization** presents the available water quality data needed to develop TMDLs, discusses the characteristics of the impaired stream segments in the watershed, and also describes the point and nonpoint sources with potential to contribute to the watershed load.
- **Section 6 Approach to Developing TMDL and Identification of Data Needs** makes recommendations for the models and analysis that are needed for TMDL development and also suggests segments for Stage 2 data collection.
- **Section 7 Methodology Development for the Middle Sangamon River Watershed** details the development of the TMDLs and LRSs for each impaired stream segment.
- **Section 8 Total Maximum Daily Load for the Middle Sangamon River Watershed** provides the results of the TMDL and LRS analyses for each impaired stream segment.
- **Section 9 Implementation Plan for the Middle Sangamon River Watershed** makes recommendations for implementation actions, point source controls, management measures, and BMPs that can be used to address water quality issues in the watershed.



**Middle Sangamon River
TMDL Watershed**

FIGURE 1-1

This page intentionally left blank.

Section 2

Middle Sangamon River Watershed Description

2.1 Middle Sangamon River Watershed Location

The Middle Sangamon River watershed (**Figure 1-1**) is located in central Illinois, flows in a westerly direction, and drains approximately 328,000 acres. A total of 150,085 acres (46 percent of the total watershed) lie in Macon County, 95,405 CDL loading cap acres (29 percent of the total watershed) lie in northern Christian County, 82,111 acres (25 percent of the total watershed) lie in eastern Sangamon County, and 709 acres (0.2 percent of the total watershed) lie in southern Logan County.

2.2 Topography

Topography is an important factor in watershed management because stream types, precipitation, and soil types can vary dramatically by elevation. National Elevation Dataset (NED) coverages containing 30-meter grid resolution elevation data are available from the U.S. Geological Survey (USGS) for each 1:24,000-topographic quadrangle in the United States. Elevation data for the Middle Sangamon River watershed were obtained by overlaying the NED grid onto the geographic information system (GIS)-delineated watershed. **Figure 2-1** shows the elevations found within the watershed.

Elevation in the Middle Sangamon River watershed ranges from 750 feet above sea level in the eastern portion of the watershed to 509 feet along the Sangamon River at the downstream (eastern) end of the watershed.

2.3 Land Use

Land use data for the Middle Sangamon River watershed were extracted from the U.S. Department of Agriculture's (USDA) National Agriculture Statistics Service (NASS) 2013 Cropland Data Layer (CDL). The CDL is a raster based, geo-referenced, crop-specific land cover data layer created to provide acreage estimates to the Agricultural Statistics Board for the state's major commodities and to produce digital, crop-specific, categorized geo-referenced output products. This information is made available to all agencies and to the public free of charge and represents the most accurate and up-to-date land cover datasets available at a national scale. The most recent available CDL dataset was produced in 2013 and includes 30 separate land use classes applicable to the watershed. The available resolution of the land cover dataset is 30 square meters. The 2013 CDL and extensive metadata are available at <http://www.nass.usda.gov/research/Cropland/SARS1a.htm>.

Land use characteristics of the watershed were determined by overlaying the statewide 2013 CDL data layer onto the GIS-delineated watershed. **Table 2-1** contains the land uses contributing to the Middle Sangamon River watershed, based on the 2013 CDL land cover categories and also includes the area of each land cover category and percentage of the watershed area. **Figure 2-2** illustrates the land uses of the watershed.

Table 2-1 Land Cover and Land Use in Middle Sangamon River Watershed

Land Cover Category	Area (Acres)	Percentage
Corn	141,946	43.2%
Soybeans	103,514	31.5%
Grass/Pasture	21,726	6.6%
Developed/Low Intensity	16,872	5.1%
Developed/Open Space	16,267	5.0%
Deciduous Forest	15,847	4.8%
Developed/Med Intensity	4,566	1.4%
Open Water	2,022	0.6%
Woody Wetlands	1,959	0.6%
Developed/High Intensity	1,849	0.6%
Winter Wheat	1,085	0.3%
Alfalfa	221	0.1%
Barren	173	0.1%
Winter Wheat/Soybeans	101	<0.1%
Other Hay/Non Alfalfa	58	<0.1%
Herbaceous Wetlands	21	<0.1%
Clover/Wildflowers	16	<0.1%
Sweet Corn	13	<0.1%
Fallow/Idle Cropland	9.3	<0.1%
Corn/Soybeans	6.7	<0.1%
Dry Beans	2.2	<0.1%
Winter Wheat/Sorghum	1.8	<0.1%
Pop or Orn Corn	1.6	<0.1%
Sod/Grass Seed	0.89	<0.1%
Walnuts	0.67	<0.1%
Sunflower	0.44	<0.1%
Spring Wheat	0.44	<0.1%
Switchgrass	0.44	<0.1%
Oats	0.22	<0.1%
Rye	0.22	<0.1%
Grand Total	328,282	100

The land cover data reveal that over 247,137 acres, representing 75.3 percent of the total watershed area, are devoted to agricultural activities. Corn and soybean farming account for 43.2 percent and 31.5 percent of the watershed area, respectively. Rural grassland, floodplain forest, and upland areas represent a total of 11.5 percent of the watershed area (37,588 acres). Approximately 12 percent of the watershed area (39,554 acres) is developed, urbanized land.

2.4 Soils

Soils data are available through the Soil Survey Geographic (SSURGO) database. For SSURGO data, field mapping methods using national standards are used to construct the soil maps. Mapping

scales generally range from 1:12,000 to 1:63,360 making SSURGO the most detailed level of soil mapping done by the Natural Resources Conservation Service (NRCS).

Attributes of the spatial coverage can be linked to the SSURGO databases, which provide information on various chemical and physical soil characteristics for each map unit and soil series. Of particular interest for TMDL development are the hydrologic soil groups as well as the K-factor of the Universal Soil Loss Equation (USLE). The following sections describe and summarize the specified soil characteristics for the Middle Sangamon River watershed.

2.4.1 Middle Sangamon River Watershed Soil Characteristics

Appendix B contains a table of the SSURGO soil series for the Middle Sangamon River watershed. A total of 133 soil types exist in the watershed. The two most common types—Ipava silt loam (0 to 2 percent slopes), and Sable silty clay loam (0 to 2 percent slopes)—each cover a small percentage of the overall watershed (17.7 and 17.2 percent, respectively). All other soil types each represent less than 8 percent of the total watershed area. The table in Appendix B also contains the area, dominant hydrologic soil group, and k-factor range.

Hydrologic soil groups can be used to estimate runoff volumes based on precipitation data. A number of different hydrologic soil groups are found within the Middle Sangamon River watershed **Figure 2-3**. Soils are assigned to one of four groups according to the infiltration of water when the soils are thoroughly wet and receive precipitation from long-duration storms:

- Group A: Soils in this group have low runoff potential when thoroughly wet. Water is transmitted freely through the soil.
- Group B: Soils in this group have moderately low runoff potential when thoroughly wet. Water transmission through the soil is unimpeded.
- Group C: Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission through the soil is somewhat restricted.
- Group D: Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

While hydrologic soil groups A, B, C, D, B/D, and C/D are all found within the Middle Sangamon River watershed, groups B/D, B, and C/D are the most common types and represent 38.4, 35.1, and 20.8 percent of the watershed, respectively. Group C soils cover approximately 4 percent of the watershed with the remaining soil groups each covering less than 1 percent of the land area. Group B is defined as having "moderately low runoff potential when thoroughly wet." Water transmission through these soils is unimpeded. Group B/D and C/D soils are dual hydrologic soil groups because these soils can be adequately drained. The first letter applies to the drained condition and the second to the undrained condition. For the purpose of hydrologic soil group, adequately drained means that the seasonal high water table is kept 24 inches below the surface in a soil where it would be higher in a natural state (NRCS 2009).

A commonly used soil attribute is the soil erodibility factor (K-factor). The K-factor indicates the susceptibility of a soil to sheet and rill erosion by water. The K-factor is one of the factors used in the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss

by sheet and rill erosion. Losses are expressed in tons per acre per year. These estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and permeability. Values of K range from 0.02 to 0.69. The higher the value, the more susceptible the soil is to sheet and rill erosion by water (Web Soil Survey 2013).

The distribution of K-factor values in the Middle Sangamon River watershed range from 0.02 to 0.49.

2.5 Population

The Census 2010 TIGER/Line data from the U.S. Census Bureau were retrieved. Geographic shapefiles of census blocks were downloaded for the entire state of Illinois. All census blocks that have geographic center points (centroids) within the watershed were selected and tallied in order to provide an estimate of populations in all census blocks both completely and partially contained by the watershed boundary. Approximately 70,800 people reside in the Middle Sangamon River watershed. The major municipalities in the watershed are shown in **Figure 1-1**. The largest urban development in the watershed is the city of Decatur. The estimated population of the portion of Decatur that lies within the watershed boundary is approximately 47,100 people.

2.6 Climate, Pan Evaporation, and Streamflow

2.6.1 Climate

Central Illinois has a temperate climate with hot summers and cold, moderately snowy winters. Monthly precipitation and temperature data from Decatur, Illinois (station id. 112193) in Macon County were extracted from the National Climatic Data Center (NCDC) database for the years 1893 through 2013. The data station in Decatur, Illinois is near the eastern edge of the Middle Sangamon River watershed and is expected to be representative of precipitation throughout the watershed.

Table 2-2 contains the average monthly precipitation along with average high and low temperatures for the period of record. The average annual precipitation is 38.3 inches. May and June are historically the wettest months while January and February are the driest.

Table 2-2 Average Monthly Climate Data in Decatur, Illinois

Month	Total Precipitation (inches)	Maximum Temperature (degrees F)	Minimum Temperature (degrees F)
January	2.2	57.2	-4.8
February	2.0	61.5	-0.3
March	3.2	74.6	12.2
April	3.9	83.6	25.3
May	4.3	89.9	35.4
June	4.1	95.4	46.2
July	3.6	97.6	52.2
August	3.4	96.4	50.3
September	3.5	93.5	38.0
October	3.0	85.7	27.1
November	2.8	73.0	15.1
December	2.5	60.5	1.4
Total	38.3		

2.6.2 Pan Evaporation

Through the Illinois State Water Survey (ISWS) website, pan evaporation data are available from nine locations across Illinois (ISWS 2007). The Springfield, Illinois station was chosen to be representative of pan evaporation conditions for the Middle Sangamon River watershed. The Springfield station is located approximately 25 miles west of the Middle Sangamon River watershed. This station was chosen for its proximity to the Middle Sangamon River watershed. The average annual pan evaporation at the Springfield station for the years 1980 to 1990 is 49.2 inches. Actual evaporation is typically less than pan evaporation, so the average annual pan evaporation was multiplied by 0.75 to calculate an average annual evaporation of 36.9 inches (ISWS 2007).

2.6.3 Streamflow

Analysis of the Middle Sangamon River watershed requires an understanding of flow throughout the drainage area. One active USGS gage (USGS 5573540 Sangamon River at Rt 48 at Decatur, Illinois) exists within the watershed **Figure 2-4**. An additional active USGS gage (USGS 5576500 at Riverton, Illinois) is located on the Sangamon River approximately 2 miles downstream of the Middle Sangamon River watershed boundary. USGS gage 5592050 Robinson Creek near Shelbyville, Illinois is located on a smaller tributary approximately 15 miles south of the Middle Sangamon River watershed and serves as a surrogate for estimating stream flows in smaller tributaries within the Middle Sangamon River watershed **Figure 2-4**. **Table 2-3** summarizes the stations along with their respective data availability information.

Table 2-3 Streamflow Gages used for Middle Sangamon River Watershed TMDL Assessment

Gage Number	Name	Available Data Type	POR
5573540	Sangamon River at Rt. 48 at Decatur, IL	Gage Height, Discharge	1982-2016
5576500	Sangamon River at Riverton, IL	Gage Height, Discharge	1908-2016
5592050	Robinson Creek near Shelbyville, IL	Gage Height, Discharge	1979-2016

USGS gage 5573540 (Sangamon River at Rt 48) is located at the upper end of the Middle Sangamon River watershed just above impaired segment E-05. The Sangamon River at this gage has a drainage area of approximately 938 square miles. The average monthly flows in the Sangamon River at this location (gage 5573540) range from 111 cubic feet per second (cfs) in August to 1,360 cfs in May **Figure 2-5**.

USGS gage 5576500 (Sangamon River at Riverton, Illinois) is located approximately 2 miles downstream of the Middle Sangamon River Watershed and has a drainage area of approximately 2,618 square miles. The average monthly flows in the Sangamon River at this location (gage 5576500) are considerably greater, ranging from 498 cfs in August to 3,310 cfs in May.

USGS gage 5592050 (Robinson Creek near Shelbyville) is located approximately 15 miles south of the Middle Sangamon River Watershed and has a drainage area of approximately 93.1 square miles. The average monthly flows in the Robinson Creek range from 13 cfs in August to 151 cfs in May.

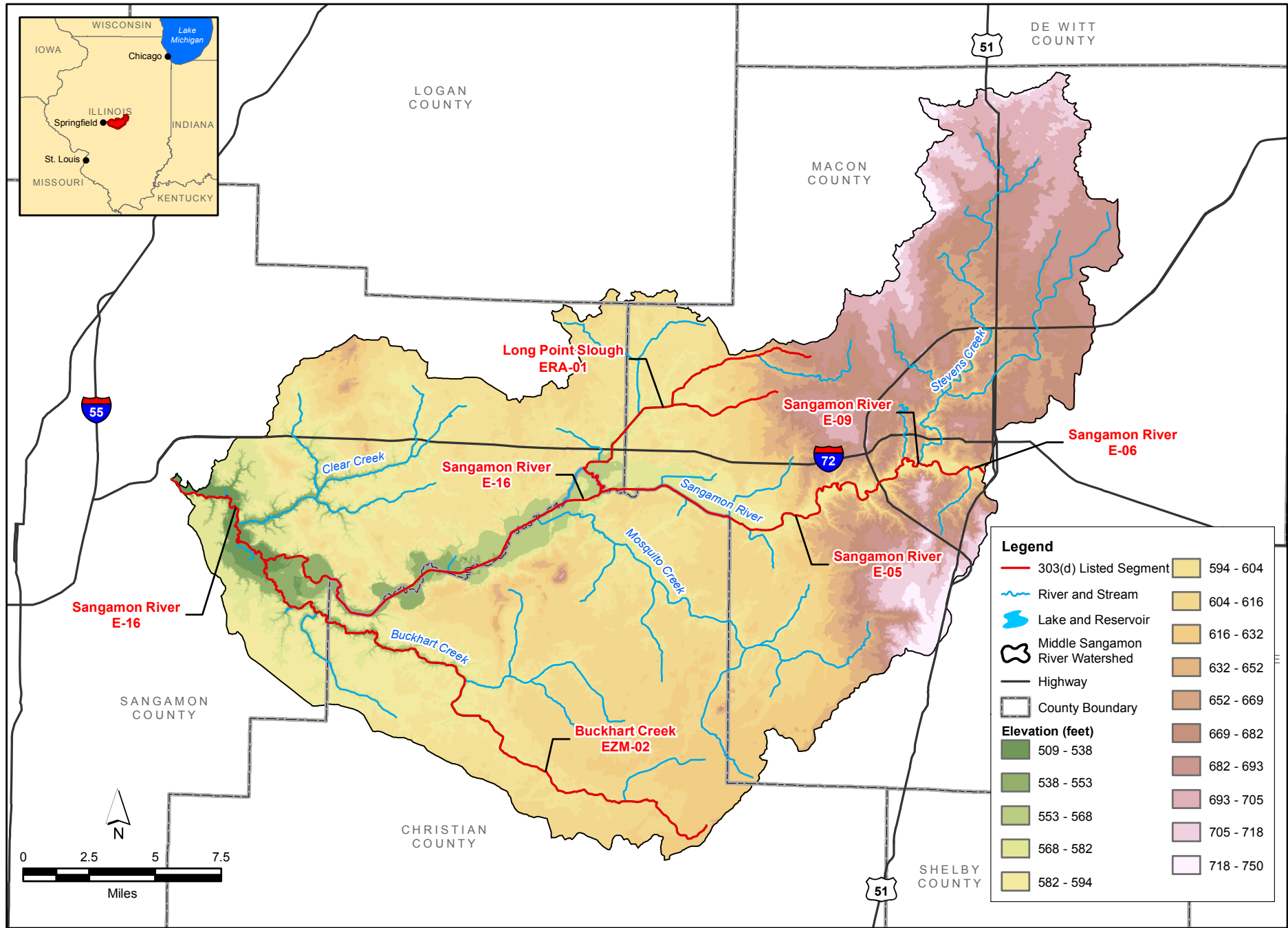
Data from these gages were used to estimate flow values for the impaired segments within the Middle Sangamon River watershed. The closest available gage on the same waterbody or the gage with the most similar land use and watershed area was selected for each segment. Estimates of flow values for impaired segments is corrected for each segment's watershed size using the drainage area ratio method, represented by the following equation:

$$Q_{\text{gaged}} \left(\frac{\text{Area}_{\text{ungaged}}}{\text{Area}_{\text{gaged}}} \right) = Q_{\text{ungaged}}$$

where Q_{gaged} = Streamflow of the gaged basin
 Q_{ungaged} = Streamflow of the ungaged basin
 $\text{Area}_{\text{gaged}}$ = Area of the gaged basin
 $\text{Area}_{\text{ungaged}}$ = Area of the ungaged basin

The assumption behind the equation is that the flow per unit area is equivalent in watersheds with similar characteristics. Therefore, the flow per unit area in the gaged watershed multiplied by the area of the ungaged watershed estimates the flow for the ungaged watershed.

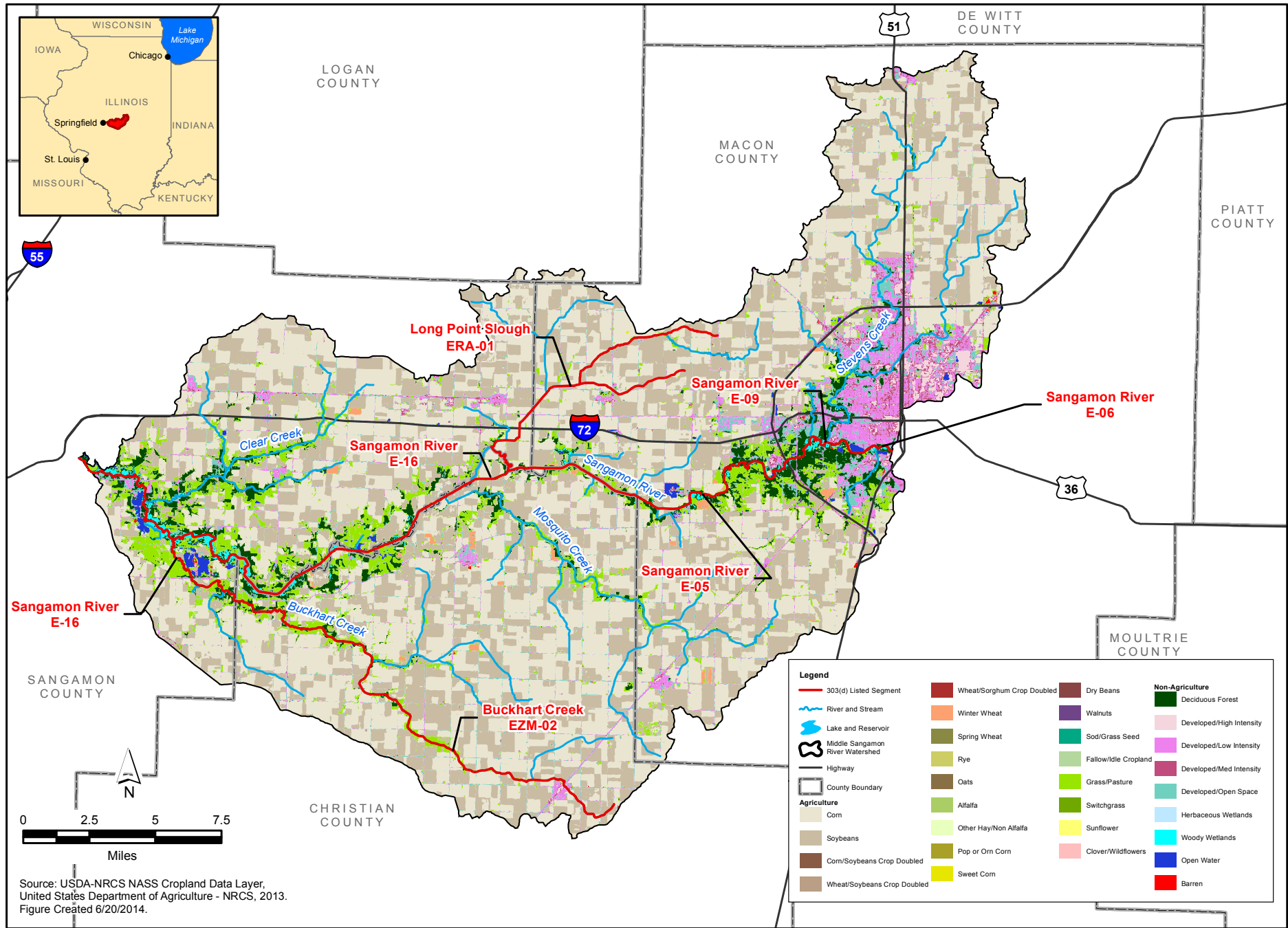
Data downloaded through the USGS for the surrogate gage on Robinson Creek were adjusted to account for point source influence in the watershed upstream of the gaging station. Average daily flows from all National Pollutant Discharge Elimination System (NPDES) permitted facilities upstream of the surrogate USGS gages were subtracted from the gaged flow prior to flow-per-unit-area calculations. The resulting estimates account for flows associated with precipitation and overland runoff only. Average daily flows from permitted NPDES discharges upstream of the impaired segments in the target watershed were then added back into the equation to more accurately reflect estimated daily streamflow conditions in a given segment.



Middle Sangamom River Watershed Elevation

FIGURE 2-1

This page intentionally left blank.

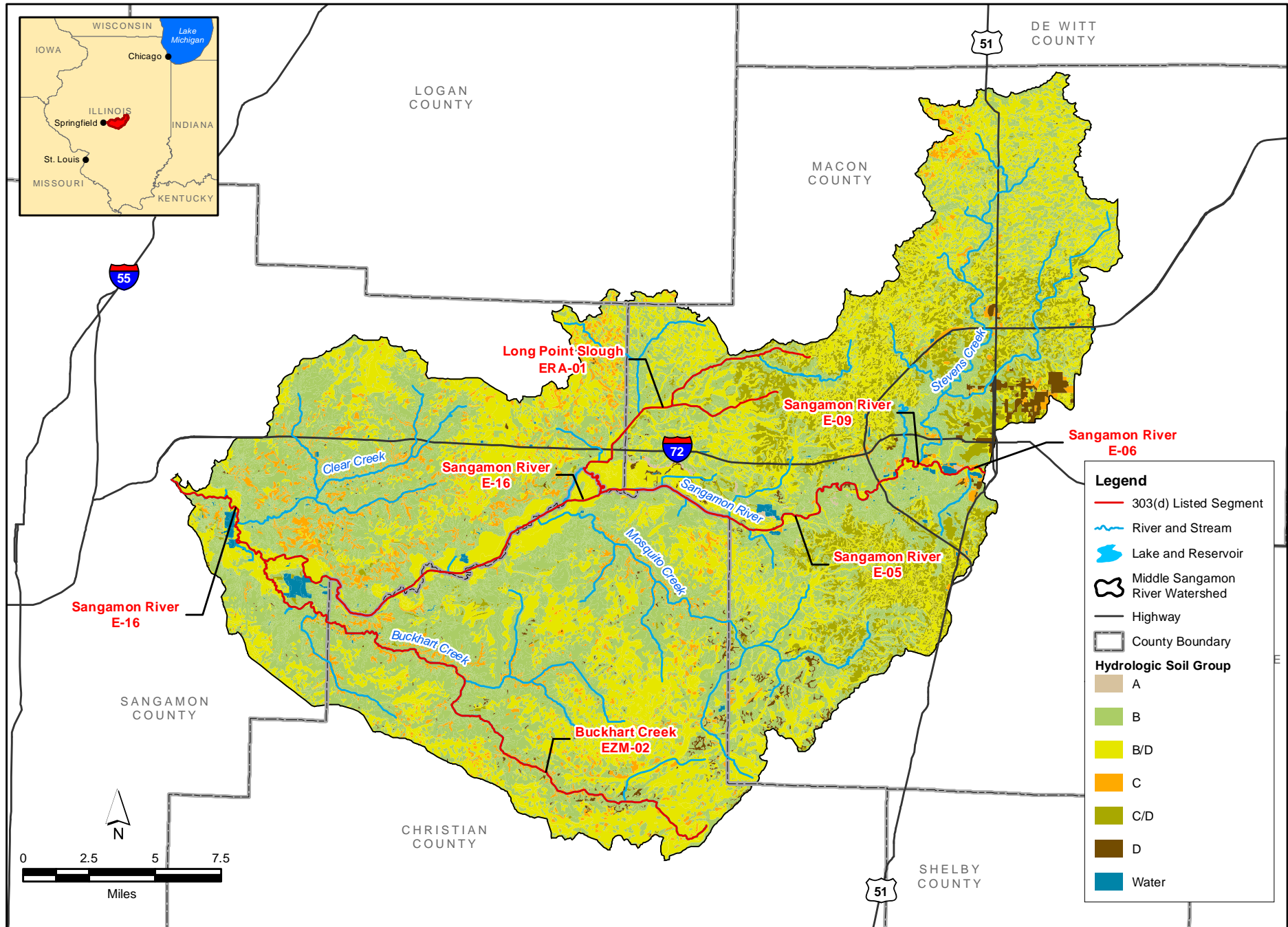


Source: USDA-NRCS NASS Cropland Data Layer,
 United States Department of Agriculture - NRCS, 2013.
 Figure Created 6/20/2014.

**Middle Sangamon River
 Watershed Land Use**

FIGURE 2-2

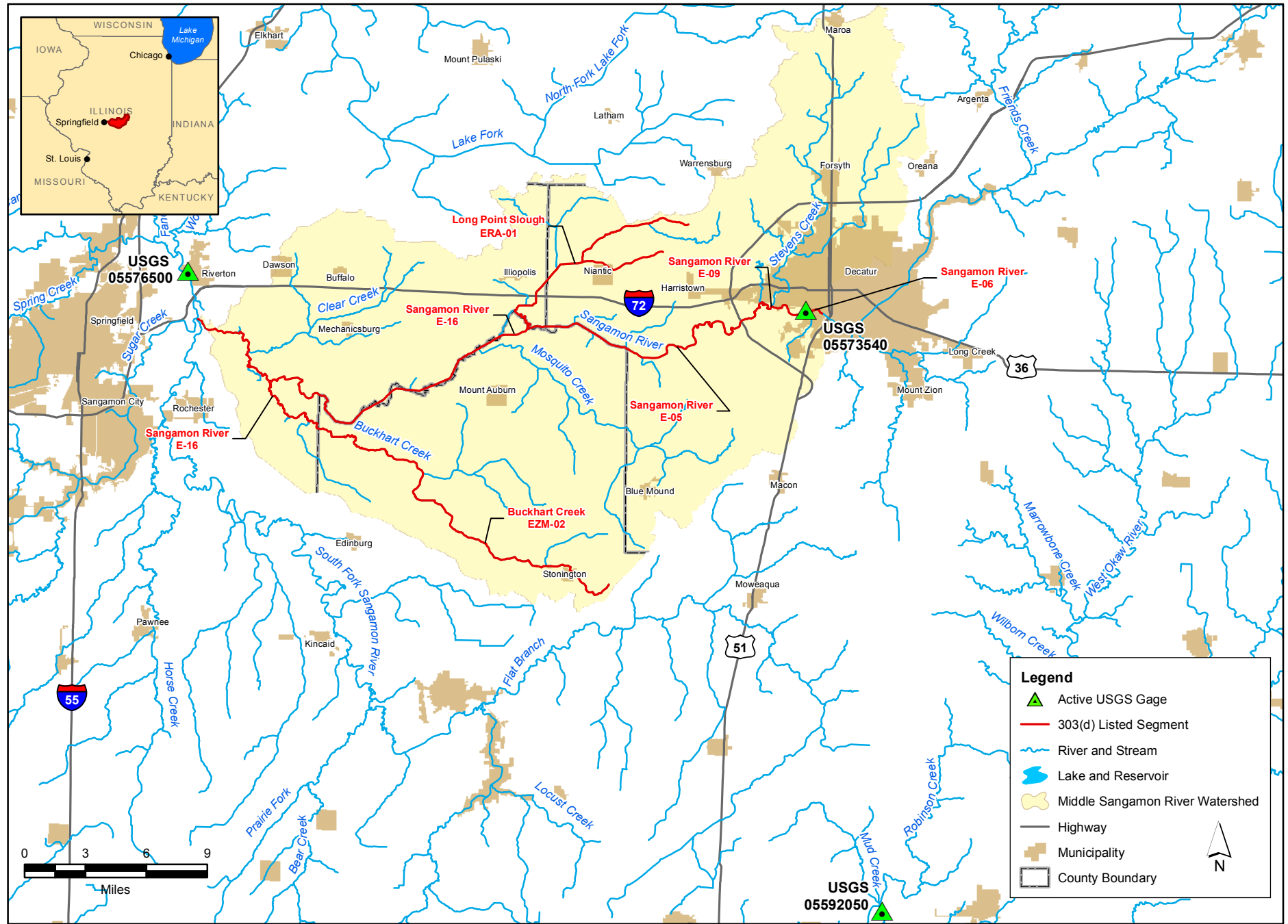
This page intentionally left blank.



Middle Sangamon River Watershed Soils

FIGURE 2-3

This page intentionally left blank.



Legend

- ▲ Active USGS Gage
- 303(d) Listed Segment
- River and Stream
- Lake and Reservoir
- Middle Sangamon River Watershed
- Highway
- Municipality
- County Boundary

**Middle Sangamon River
Active USGS Gages**



This page intentionally left blank.

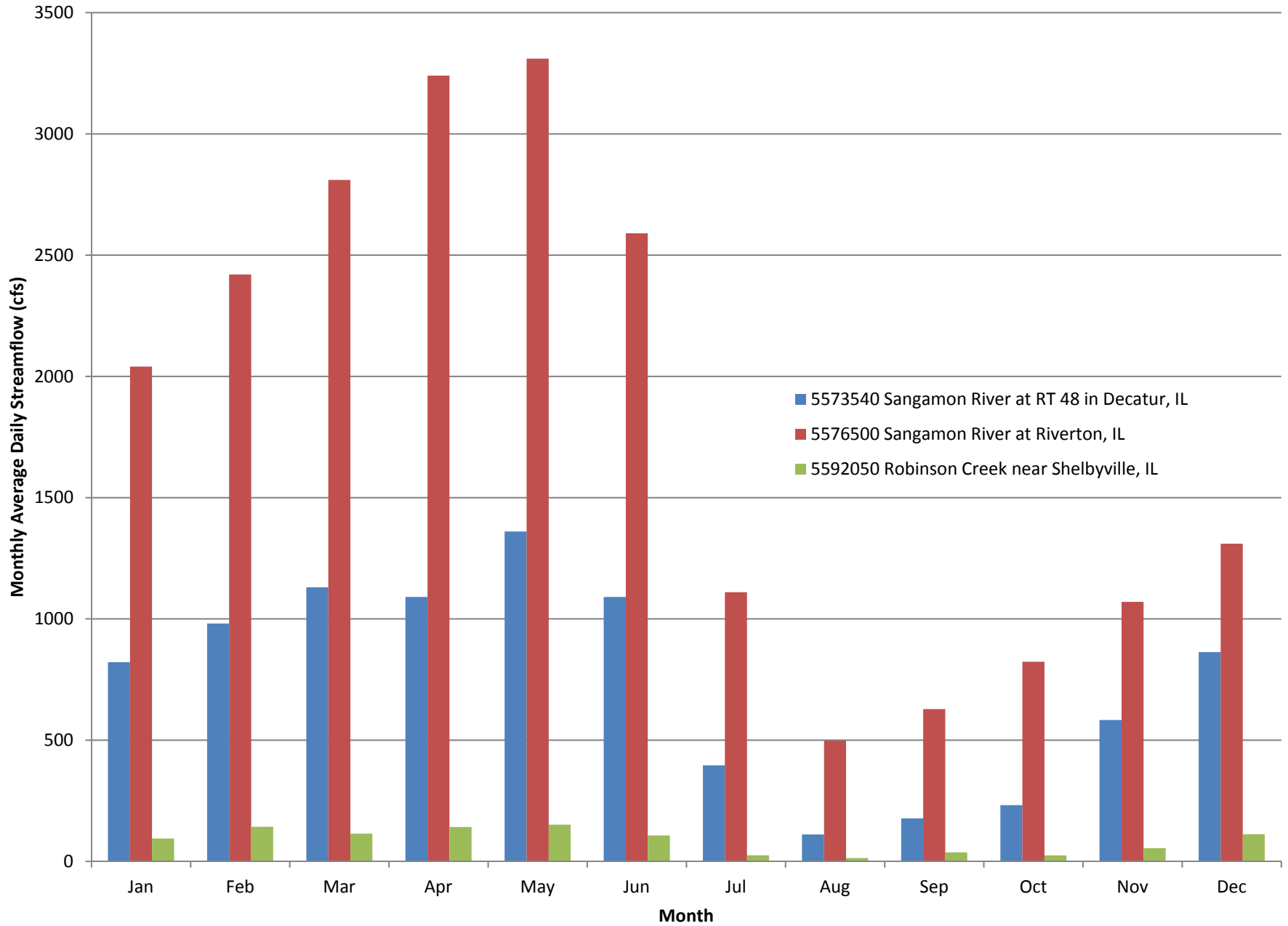


Figure 2-5
Average Daily Streamflow by Month
Middle Sangamon River Watershed

This page intentionally left blank.

Section 3

Middle Sangamon River Watershed Public Participation

3.1 Middle Sangamon River Watershed Public Participation and Involvement

Public knowledge, acceptance, and follow-through are necessary to implement a plan to meet recommended TMDLs. It is important to involve the public as early in the process as possible to achieve maximum cooperation and counter concerns as to the purpose of the process and the regulatory authority to implement any recommendations.

The Stage 1 public meeting was held in Decatur, Illinois on September 11, 2014. An additional public meeting was held at Richland Community College on September 27, 2017. Comments received at the meetings, or following the meetings during the 30-day comment period, have been incorporated into this document.

This page intentionally left blank.

Section 4

Middle Sangamon River Watershed Water Quality Standards

4.1 Illinois Water Quality Standards

Water quality standards are developed and enforced by the state to protect the "designated uses" of the state's waterways. In the state of Illinois, setting the water quality standards is the responsibility of the Illinois Pollution Control Board (IPCB). Illinois is required to update water quality standards every 3 years in accordance with the CWA. The standards requiring modifications are identified and prioritized by Illinois EPA, in conjunction with USEPA. New standards are then developed or revised during the 3-year period.

Illinois EPA is also responsible for developing scientifically based water quality criteria and proposing them to the IPCB for adoption into state rules and regulations. The Illinois water quality standards are established in the Illinois Administrative Rules Title 35, Environmental Protection; Subtitle C, Water Pollution; Chapter I, Pollution Control Board; Part 302, Water Quality Standards.

4.2 Designated Uses

The waters of Illinois are classified by designated uses, which include: General Use, Public and Food Processing Water Supplies, Lake Michigan, and Secondary Contact and Indigenous Aquatic Life Use (Illinois EPA 2013). The designated use applicable to the Middle Sangamon River Watershed is the General Use.

4.2.1 General Use

The General Use classification is defined by IPCB as standards that "will protect the state's water for aquatic life, wildlife, agricultural use, secondary contact use and most industrial uses, and ensure the aesthetic quality of the state's aquatic environment." Primary contact uses, defined as "any recreational or other water use in which there is prolonged and intimate contact with the water (where the physical configuration of the waterbody permits it) involving considerable risk of ingesting water in quantities sufficient to pose a significant health hazard, such as swimming and water skiing" (35 Ill. Adm. Code 301.355), are protected for all General Use waters.

4.3 Illinois Water Quality Standards for Impaired Waterbodies in the Middle Sangamon River Watershed

Table 4-1 presents the numeric water quality standards of the potential causes of impairment for streams in the Middle Sangamon River Watershed. According to the Illinois EPA Integrated Report, aquatic life use assessments in streams are typically based on the interpretation of biological information, physicochemical water data, and physical-habitat. The primary biological measures used are the fish Index of Biotic Integrity (fIBI), the macroinvertebrate Index of Biotic

Integrity (mIBI) and the Macroinvertebrate Biotic Index (MBI). Physical-habitat information used in assessments includes quantitative or qualitative measures of stream-bottom composition and qualitative descriptors of channel and riparian conditions. Physicochemical water data used include measures of “conventional” parameters (e.g., dissolved oxygen [DO], pH, and temperature), priority pollutants, non-priority pollutants, and other pollutants. To assess primary contact use, Illinois EPA uses all fecal coliform bacteria from water samples collected in May through October, over the most recent five-year period (i.e., 2009 through 2013 for the 2014 Integrated Report). Based on these water samples, geometric means and individual measurements of fecal coliform bacteria are compared to the concentration thresholds.

Table 4-1 Summary of Numeric Water Quality Standards for Potential Causes of Impairments in the Middle Sangamon River Watershed

Parameter	Units	General Use Water Quality Standard	Regulatory Reference
Dissolved Oxygen	mg/L	March through July ≥5.0 minimum & ≥6.0 7-day daily mean averaged over 7 days;	302.206(b)
		August through February ≥3.5 minimum, ≥4.0 7-day minimum averaged over 7 days & ≥5.5 30-day daily mean	
Total Fecal Coliform	Count/100 mL	<i>May through October</i> 200 ⁽¹⁾ , 400 ⁽²⁾	302.209

mg/L = milligrams per liter

(1) Geometric mean based on a minimum of five samples taken over not more than a 30-day period.

(2) Standard shall not be exceeded by more than 10 percent of the samples collected during any 30-day period.

4.4 Water Quality Targets

As mentioned in Section 1.2, Illinois EPA began including LRSs in TMDL watershed projects in 2012 for pollutants that do not currently have numeric water quality standard. Developing an LRS involves determining the loading capacity and load reduction necessary that is needed in order for the waterbody to meet “Full Use Support” for its designated uses. The load capacity is not divided into WLA, LA, or MOS, these are represented by one number as a target concentration for load reduction within each unique watershed. The LRS provides guidance (with no regulatory requirements) for voluntary nonpoint source reduction efforts by implementing agricultural and urban stormwater BMPs.

The current LRS targets are based on data from all stream segments within the HUC-10 basins of the watershed, as well as stream segments or lakes which closely border the watershed in neighboring HUC-10 basins, in order to best represent the land use, hydrologic, and geologic conditions unique to the watershed. Load reduction targets were calculated by Illinois EPA using data from stream segments whose most current assessment shows full support for aquatic life and data that have passed quality assurance and quality checks within Illinois EPA and are in accordance with state and federal laws. An LRS target value was developed by Illinois EPA for the Middle Sangamon River watershed to address impairments caused by sedimentation and siltation using non-volatile suspended solids (NVSS) concentrations as a surrogate target parameter. The watershed-specific target value for NVSS is 23.1 mg/L.

4.5 Potential Pollutant Sources

In order to properly address the conditions within the Middle Sangamon River watershed, potential pollutant sources must be investigated for the pollutants where TMDLs have been developed. The following is a summary of the potential sources associated with the listed potential causes for the 303(d) listed segments in this watershed. The sources provided below were identified in the 2016 303(d) list by the state. Additional investigation and documentation of sources is provided in Sections 5, 7 and 8.

Table 4-2 Potential Pollutant Sources for Impaired Waterbodies in the Middle Sangamon River Watershed

Segment ID	Segment Name	Potential Causes of Impairment	Designated Use	Potential Sources (as identified by the 2016 303(d) list)
E-05	Sangamon River	Fecal Coliform	Primary Contact Recreation	Sources Unknown
E-06	Sangamon River	Fecal Coliform	Primary Contact Recreation	Sources Unknown
E-09	Sangamon River	Fecal Coliform	Primary Contact Recreation	Sources Unknown
E-16	Sangamon River	Fecal Coliform	Primary Contact Recreation	Sources Unknown
ERA-01	Long Point Slough	<i>Sedimentation/Siltation</i>	Aquatic Life	Channelization
EZM-02	Buckhart Creek	Dissolved Oxygen	Aquatic Life	Channelization
		<i>Sedimentation/Siltation</i>	Aquatic Life	Channelization and Crop Production

Bold Causes of Impairment have numeric water quality standards and TMDLs were developed. Italicized Causes of Impairment do not have numeric water quality standards and were addressed through LRS development.

This page intentionally left blank.

Section 5

Middle Sangamon River Watershed Characterization

In order to further characterize the Middle Sangamon River watershed, a wide range of data were collected and reviewed. Water quality data for impaired stream segments, as well as information on potential point and nonpoint sources within the watershed were compiled from a variety of data sources. This information is presented and discussed in further detail in the remainder of this section.

5.1 Water Quality Data

Illinois EPA monitoring programs that contribute data to the assessment of streams include the Ambient Water Quality Monitoring Network, the Pesticide Monitoring Subnetwork, Facility-Related Stream Surveys, Intensive Basin Surveys, and the Fish Contaminant Monitoring Program. The majority of data used for this report came from the Ambient Water Quality and Intensive Basin Surveys. The Ambient Water Quality Network includes 213 fixed stream stations statewide that are sampled every 6 weeks. Additional data are collected during Intensive Basin Surveys, which typically include approximately 100 basin-specific stations per year and are conducted on a 5-year cycle. Additional information on Illinois EPA's monitoring programs can be found in the "Illinois Water Monitoring Strategy" (<http://www.epa.state.il.us/water/water-quality/monitoring-strategy/>).

Data from a total of eight historical water quality monitoring stations within the Middle Sangamon River watershed were reviewed for this report. These water quality data were primarily provided by the Illinois EPA; however, some additional water quality data were queried from the USEPA's Storage and Retrieval (STORET) database. **Figure 5-1** shows the water quality data stations within the watershed that contain data relevant to the impaired segments.

The impaired waterbody segments in the Middle Sangamon River watershed were presented in Section 1. Refer to **Table 1-1** for impairment information specific to each segment. Data are summarized by impairment and discussed in relation to the relevant Illinois numeric water quality standard or LRS target value. Data summaries provided in this section include all available date ranges of collected data, in some cases dating back to the 1970s.

5.1.1 Stream Water Quality Data

There are six impaired stream segments within the Middle Sangamon River watershed (Sangamon River segments E-05, E-06, E-09, and E-16; Long Point Slough segment ERA-01; and Buckhart Creek segment EZM-02). Impaired segments on the Sangamon River and Buckhart Creek have causes of impairment based on constituents with numeric water quality standards (fecal coliform and dissolved oxygen [DO]). Buckhart Creek and Long Point Slough are impaired due to excess sedimentation and siltation which was assessed by review of NVSS concentrations

(refer to discussion in Section 4). The available NVSS data for these segments are presented below.

There is one active water quality station on Long Point Slough (ERA-01) and in each of the impaired segments of the Sangamon River: E-05, E-06, E-09, and E-16. Data from three water quality stations are available for the impaired segment of Buckhart Creek: EZM-01, EZM-02, and EZM-07. The periods of record for the Long Point Slough and Buckhart Creek data, however, is extremely limited. The data summarized in this section include water quality data for impaired constituents as well as parameters that may be useful for future modeling and analysis efforts. All historical water quality data for the impaired segments of the Middle Sangamon River watershed are available in Appendix C.

5.1.2 Fecal Coliform

Sangamon River segments E-05, E-06, E-09, and E-16 are listed for impairment of the primary contact recreation use caused by total fecal coliform. **Table 5-1** summarizes available historical fecal coliform data on these segments. The general use water quality standard for fecal coliform states that the standard of 200 colony forming units (cfu) per 100 milliliters (mL) shall not be exceeded by the geometric mean of at least five samples, nor can 10 percent of the samples collected exceed 400 cfu per 100 mL in protected waters, except as provided in 35 Ill. Adm. Code 302.209(b). Samples must be collected over a 30-day period or less during the months of May through October. Due to the frequency of historical sampling, the required minimum of five samples collected in a 30-day period was not available for comparison to the standard prior to Stage 2 data collection.

In 2015, Illinois EPA collected samples for fecal coliform bacteria analysis on a number of occasions and the 5-samples in 30-days requirement was met at stations E-05, E-06, and E-09 during a period covering parts of May and June. Exceedances of the 200 cfu/100 ml 30-day average (geomean) standard were noted during this time period at stations E-05 (338 cfu/100ml) and E-06 (209 cfu/100ml). The 30-day average at station E-09 during this time period was 118 cfu/100ml and did not exceed the standard. A total of four viable samples were collected at E-16 during this time period and resulted in a geomean of 547 cfu/100ml, however; the minimum sample size criteria was not achieved.

In order to utilize a broader scope of the available data and as a conservative measure, single samples are compared to both standards for the purposes of this report. Potential exceedances of the 200 cfu/100 mL geometric mean (based on single sample comparisons to the geometric mean standard due to data limitations) and 400 cfu/100 mL daily maximum standards occur regularly throughout all impaired stream segments (**Table 5-1**), with potential exceedances recorded most frequently in Segment E-09 (96 of 119 samples). **Figure 5-2** through **Figure 5-5** show the total fecal coliform samples collected over time on the impaired segments of the Sangamon River. The data do not show any discernable seasonal or long-term temporal trends.

Table 5-1 Existing Fecal Coliform Data for Sangamon River Watershed Impaired Stream Segments

Sample Location and Parameter	Period of Record and Number of Data Points	Geometric Mean of all Samples	Maximum	Minimum	Number of Samples > 200 (1)	Number of Samples > 400 (1)
Sangamon River Segment E-05; Sample Location E-05						
Total Fecal Coliform (cfu/100 mL)	2000 - 2015; 56	443	11,800	30	40	27
Sangamon River Segment E-06; Sample Location E-06						
Total Fecal Coliform (cfu/100 mL)	1999 - 2015; 70	53	20,000	1	16	6
Sangamon River Segment E-09; Sample Location E-09						
Total Fecal Coliform (cfu/100 mL)	1978 - 2015; 134	1,208	920,000	10	103	89
Sangamon River Segment E-16; Sample Location E-16						
Total Fecal Coliform (cfu/100 mL)	2000 - 2015; 40	302	6,050	1	28	18

¹⁾ Samples collected during the months of May through October

5.1.3 Dissolved Oxygen

Buckhart Creek segment EZM-02 is listed for impairment of the aquatic life use caused by low DO concentrations. **Table 5-2** summarizes available historical DO data on this segment. Two active water quality stations were located on this segment; however, prior to TMDL Stage 2 activities, the available data included only three records for DO. All prior measurements of DO reported for segment EZM-02 occurred in 2003. Additional data were collected from Buckhart Creek in 2015 and are included in this report.

The general use water quality standard for DO provides seasonal instantaneous minimum and minimum weekly (7-day) average concentrations for DO in streams. Due to limited data availability, only the instantaneous minimum standards (5.0 mg/L for March through July and 3.5 mg/L for August through February) were used to assess compliance.

The summary data presented in **Table 5-2** reflect single measurements compared to the applicable seasonal standard at the time of the field measurement. One exceedance was reported in the available dataset. The exceedance was reported on October 15, 2003, for a DO measurement of 3.2 mg/L that was below the applicable water quality standard of 3.5 mg/L. **Figure 5-6** shows the DO measurements collected over time on Buckhart Creek. Recent data show that DO concentrations have been in compliance with the water quality standard and further TMDL development is not warranted. The segment has been recommended for delisting from the 2018 303(d) list.

Table 5-2 Existing Dissolved Oxygen Data for Buckhart Creek Segment EZM-02; Monitoring Locations EZM-01, EZM-02, and EZM-07

Parameter	Illinois WQ Standard (mg/L)	Period of Record and Number of Data Points	Mean	Maximum	Minimum	Number of Exceedances
Dissolved Oxygen	5.0 ⁽¹⁾ , 3.5 ⁽²⁾	2003; 4	7.4	10.3	3.2	1
		2015; 9	7.7	9.2	5.9	0

⁽¹⁾ Instantaneous Minimum *March-July*

⁽²⁾ Instantaneous Minimum *August-February*

5.1.4 Siltation/Sedimentation

Long Point Slough (ERA-01) and Buckhart Creek segment EZM-02 are both listed for impairment of the aquatic life use by sedimentation and siltation. Illinois EPA is currently addressing sedimentation and siltation impairments through assessment of NVSS concentrations. Illinois EPA provided a watershed-specific LRS target value for NVSS concentrations in streams of the Middle Sangamon River watershed of 23.1 mg/L of NVSS.

NVSS concentrations are calculated as the difference of total suspended solids (TSS) and total volatile solids (TVS) in a single sample. Only paired TSS and TVS results from the same sampling event and location were used to calculate NVSS concentrations. The available NVSS data for these segments are presented in **Table 5-3** below. Graphical comparison of the data to the LRS target value is also provided **Figure 5-7**.

Table 5-3 Existing NVSS Data for Stream Segments Impaired by Excess Sedimentation/Siltation

Sample Location and Parameter	Period of Record and Number of Data Points	Mean	Maximum	Minimum	Exceedances of the LRS Target Value
Long Point Slough Segment ERA-01; Sample Location ERA-01					
NVSS (mg/L)	2003; 3	37	55	20	2
Buckhart Creek Segment EZM-02; Sample Locations EZM-01, EZM-07					
NVSS (mg/L)	2003, 2013; 7	22	47	6	3

5.2 Point Sources

There are 14 individual NPDES permitted point sources located within the Middle Sangamon River watershed. Wastewater treatment plants, combined sewer overflows (CSOs), and additional overflow outfalls in the Upper Sangamon River watershed were assigned WLAs as part of the TMDL process completed in that watershed in 2007. WLAs for fecal coliform were assigned to the permitted discharges based on the TMDL endpoint of 200 cfu/100 mL and permitted flows or historical overflow event flow data. This earlier TMDL is being implemented to restore all waters upstream of the dam to comply with applicable water quality standards. **Table 5-4** contains permit information for all of the point sources in the Middle Sangamon River basin while **Figure 5-8** shows the locations of outfalls for each facility. Permit limits and discharge monitoring reports were analyzed and further detailed in Sections 7 and 8, where appropriate.

Municipal separate storm sewer system (MS4) permits within the watershed exist for Macon County, the City of Decatur and the Village of Forsyth (**Table 5-5**). Illinois Department of

Transportation (IDOT) roadways are also covered by a MS4 permit. MS4 discharges have the potential to impact all four segments of the mainstem Sangamon River within the watershed. Each segment is impaired for fecal coliform, which can be a potential concern for stormwater discharges.

Facilities discharging treated domestic wastewater have the potential to affect fecal coliform counts in their receiving waters. Potential pollutants discharged from industrial facilities vary by industry and may or may not contain sediments, but industry is typically less likely to impact fecal coliform counts. Permitted urban stormwater has the potential to affect sediment loading and fecal coliform loading to area waterbodies.

Table 5-4 Permitted Facilities Discharging to or Upgradient of Impaired Segments in the Middle Sangamon River Watershed

Facility ID	Facility Name	Impaired Segments	Facility Type
ILG580055	HARRISTOWN STP	E-05	Domestic Wastewater
IL0075485	ONYX VALLEY LANDFILL-DECATUR	E-05	Industrial
IL0052396	PHILLIPS PIPE LINE-DECATUR TRM	E-05	Industrial
IL0066346	T/CCI MANUFACTURING, LLC	E-05	Industrial
IL0028321	DECATUR SD MAIN STP	E-05, E-06, E-09	Domestic Wastewater
IL0041131	BLUE MOUND STP	E-16	Domestic Wastewater
ILG580167	BUFFALO, DAWSON, MECHANICSBURG	E-16	Industrial
IL0053431	DAWSON WTP	E-16	Water Treatment
IL0054623	MT. AUBURN SCHOOL	E-16	Domestic Wastewater
ILG640055	MT. AUBURN WTP	E-16	Water Treatment
ILG840188	VULCAN CONSTRUCTION MATERIALS	E-16	Industrial
IL0066877	BUCKEYE TERMINALS-HARRISTOWN	ERA-01	Industrial
ILG580149	NIANTIC STP	ERA-01	Domestic Wastewater
ILG580173	STONINGTON STP	EZM-02	Domestic Wastewater

Table 5-5 MS4 Permits in the Middle Sangamon River Watershed

Municipality	MS4 Permit Number	Permit Name	Drainage Area (Sq. Miles)
Decatur	ILR400181	Decatur, City of	44.7
Forsyth	ILR400193	Forsyth, Village of	2.1
Macon County	ILR400262	Macon County, IL	n/a
IDOT	ILR400493	Illinois Dept. of Trans.	n/a

5.3 Nonpoint Sources

There are many potential nonpoint sources of fecal coliform and sediment loading to the impaired segments in the Middle Sangamon River watershed. Data presented below include site-specific cropping practices, animal operations, and information on area septic systems. Data were collected where available through communications with the local NRCS, Illinois Soil and Water Conservation Districts, and public health departments.

5.3.1 Crop Information

Approximately 75 percent of the land within the Middle Sangamon River watershed is devoted to agriculture. Corn and soybean farming account for 43.2 and 31.5 percent of the agricultural land in the watershed area, respectively. Agricultural practices are important nonpoint sources to consider in TMDL development because of their potential to contribute sediments through soil loss and erosion. Tillage practices for crops such as corn, soybeans, and grains can be categorized as conventional till, reduced till, mulch till, and no till. Each tillage practice leaves varying levels of crop residue after planting (see detailed discussion in Section 9). Tillage practices directly relate to water quality through their effects on soil loss. Soil can be an instream pollutant (sedimentation/siltation) and can also carry pollutants (fecal coliform) to receiving waters.

The percentage of each tillage practice for corn, soybeans, and small grains by county are available in the Illinois Soil Conservation Transect Surveys conducted by the Illinois Department of Agriculture. Data specific to the Middle Sangamon River watershed were not available; however, data from the 2013 survey are presented in the following tables for the full extent of Macon **Table 5-6**, Christian **Table 5-7**, and Sangamon **Table 5-8** Counties.

Table 5-6 Tillage Practices in Macon County

Tillage System	Corn	Soybean
Conventional	84%	69%
Reduced - Till	13%	18%
Mulch - Till	1%	2%
No - Till	1%	11%

Table 5-7 Tillage Practices in Christian County

Tillage System	Corn	Soybean
Conventional	92%	18%
Reduced - Till	7%	70%
Mulch - Till	0%	8%
No - Till	0%	4%

Table 5-8 Tillage Practices in Sangamon County

Tillage System	Corn	Soybean
Conventional	52%	51%
Reduced - Till	20%	10%
Mulch - Till	8%	13%
No - Till	20%	26%

According to local NRCS officials, the use of tile drainage is widespread throughout the watershed. Tile drainage can potentially be a path for increased sediment and nutrient loss from fields. Tile drains help move water from soils and provide a quick route for pollutants on fields and bound in soils to receiving waters, particularly following precipitation events. Extensive tiling can also intensify the volume and timing of runoff events. Increasing the frequency of high intensity runoff events can increase streambank erosion which increases the sediment loading to the watershed. In Christian County, NRCS officials estimate that nearly all fields have some tiling, with up to 30 percent of farms having fully tilled fields. The situation is similar in Sangamon County, where tiling began soon after the area was settled. However, Sangamon County NRCS officials noted that many farms have recently upgraded their drainage systems to replace failing equipment. Macon County NRCS officials said drain tile is very common throughout the county due to the nature of the local soils. Without more precise local information, soils data may be reviewed in the future to provide information on hydrologic soil groups in order to estimate tiling to inform implementation of management measures.

5.3.2 Animal Operations

Information on commercial animal operations is available from the *National Agricultural Statistics Service* (NASS). Data for Christian, Macon, and Sangamon Counties are presented in **Tables 5-9, 5-10, and 5-11**. Knowing the number of animal units in a watershed is useful in TMDL development as grazing animals and wildlife have the potential to increase erosion and contribute fecal coliform through manure. Data from 2013 have been published on the USDA website, and are presented here along with the 2007 dataset for comparison. Watershed-specific information regarding animal operations located near impaired waters in the Middle Sangamon River watershed was not available during report development. The data show that in general, livestock numbers have been decreasing in the watershed counties with the exception of hogs and pigs in Christian County and cattle and calves and poultry in Macon County.

Table 5-9 Christian County Animal Population (2007 & 2013 Census of Agriculture)

Animal	2007	2013	Percent Change
Cattle and calves	8,610	7,164	-17%
Beef	4,771	1,974	-59%
Dairy	NA	10	NA
Hogs and Pigs	35,096	46,581	33%
Poultry	896	509	-43%
Sheep and Lambs	537	388	-28%
Horses and Ponies	517	337	-35%

Table 5-10 Macon County Animal Population (2007 & 2013 Census of Agriculture)

Animal	2007	2013	Percent Change
Cattle and calves	1,978	3,528	78%
Beef	NA	1,576	NA
Dairy	NA	NA	NA
Hogs and Pigs	14,368	10,259	-29%
Poultry	482	521	8%
Sheep and Lambs	67	32	-52%
Horses and Ponies	496	241	-51%

Table 5-11 Sangamon County Animal Population (2007 & 2013 Census of Agriculture)

Animal	2007	2013	Percent Change
Cattle and calves	13,893	11,340	-18%
Beef	NA	5,265	NA
Dairy	NA	343	NA
Hogs and Pigs	39,203	38,195	-3%
Poultry	4,618	3,921	-15%
Sheep and Lambs	549	434	-21%
Horses and Ponies	2,214	1,682	-24%

5.3.3 Septic Systems

Approximately 6 percent of the Middle Sangamon River watershed consists of developed or urbanized land, primarily in the Decatur metropolitan area. A majority of businesses, residences, and other structures in the developed areas are served by a municipal sewer district and septic systems are uncommon in these areas. The remainder of the watershed is rural and primarily devoted to agricultural purposes.

Many households in rural areas of Illinois that are not connected to municipal sewers make use of onsite sewage disposal systems, or septic systems. There are many types of septic systems, but the most common septic system is composed of a septic tank draining to a septic field, where pollutant removal occurs. However, the degree of removal is limited by soils and system upkeep and maintenance.

Throughout the U.S., septic systems have been found to be a significant source of nutrient and bacteria pollution. Failing or leaking septic systems contribute to fecal coliform pollution, although animal waste, urban runoff, and permitted point sources can also contribute.

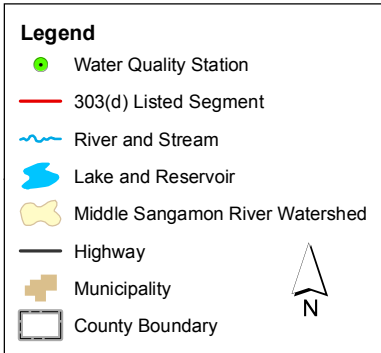
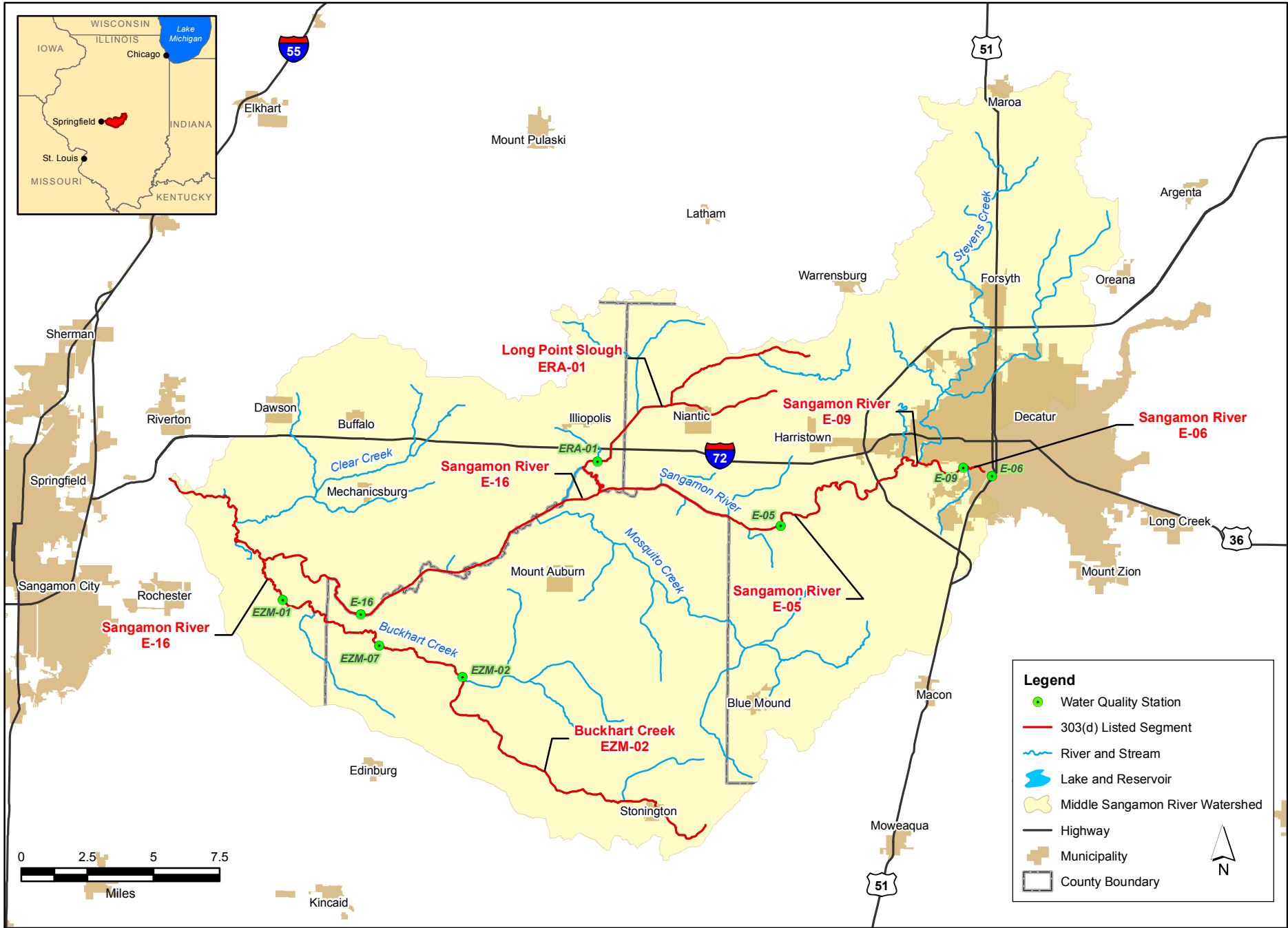
Information on the extent of sewerred and non-sewerred municipalities in the Middle Sangamon River watershed was obtained from the respective county health departments. Sangamon County health officials said most municipalities have public sewer systems but households outside of the city limits use private septic systems. The City of Decatur is the largest population center within the watershed, and Macon County health officials said that Decatur, and most towns in the county, have municipal sewer systems but estimated that perhaps 20 percent of county residents are on

private septic systems. Christian County health officials said that the Town of Stonington has a municipal sewer system but the Town of Mount Auburn does not. Residents in outlying areas of Christian County rely on private septic systems.

5.4 Watershed Studies and Other Watershed Information

Beyond the data sources described in previous sections of this report, a number of water quality and aquatic biology research projects focused on streams and lakes within the Middle Sangamon River watershed have been provided to Illinois EPA by staff and students from the Department of Biology and Chemistry at Milliken University in Decatur, Illinois. These data have been incorporated where possible, but may primarily benefit future watershed planning efforts beyond the scope of the TMDL process.

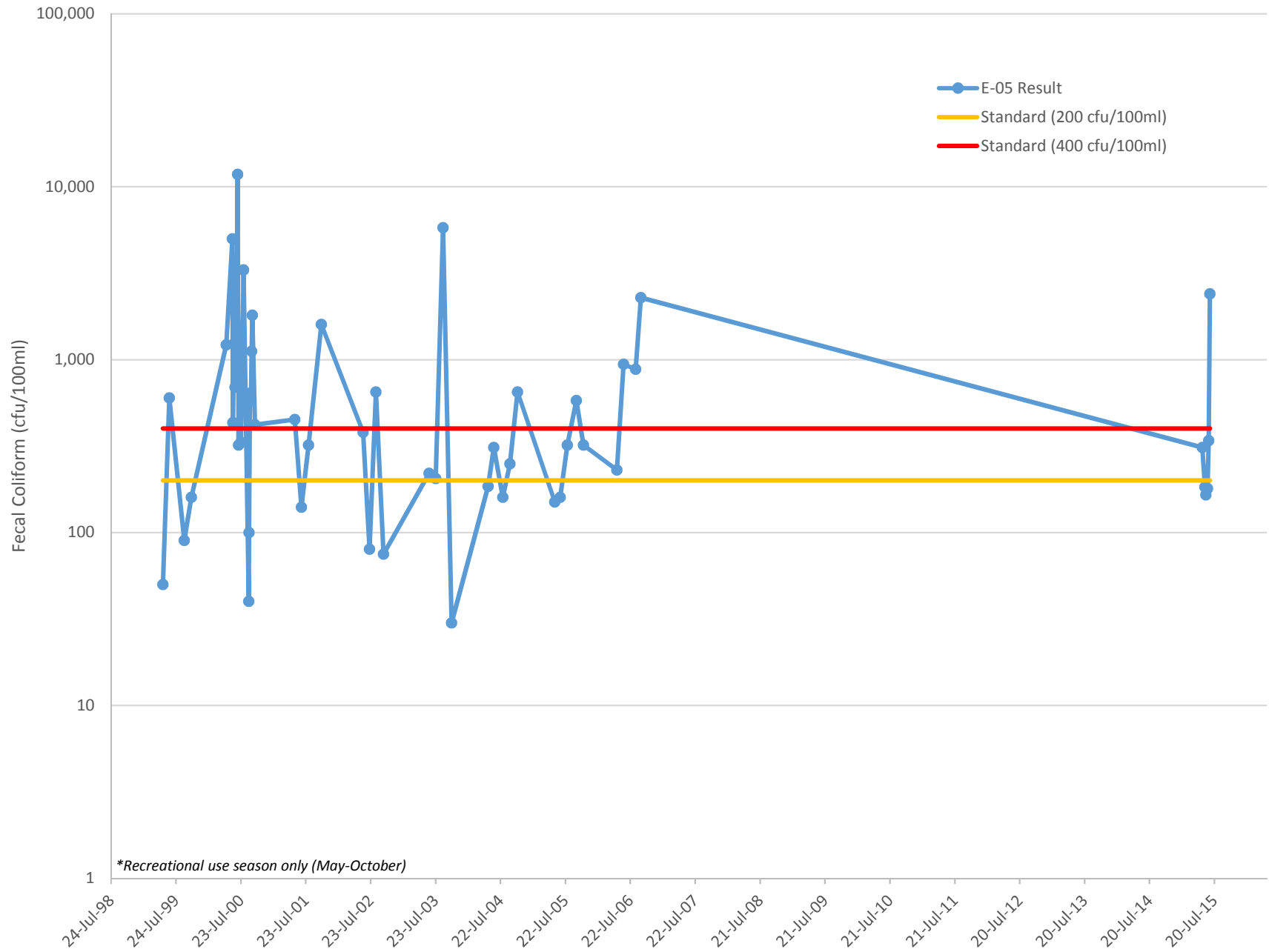
This page intentionally left blank.



Middle Sangammon River Water Quality Stations

FIGURE 5-1

This page intentionally left blank.



*Recreational use season only (May-October)

Figure 5-2
Fecal Coliform
Sangamon River Segment E-05



This page intentionally left blank.

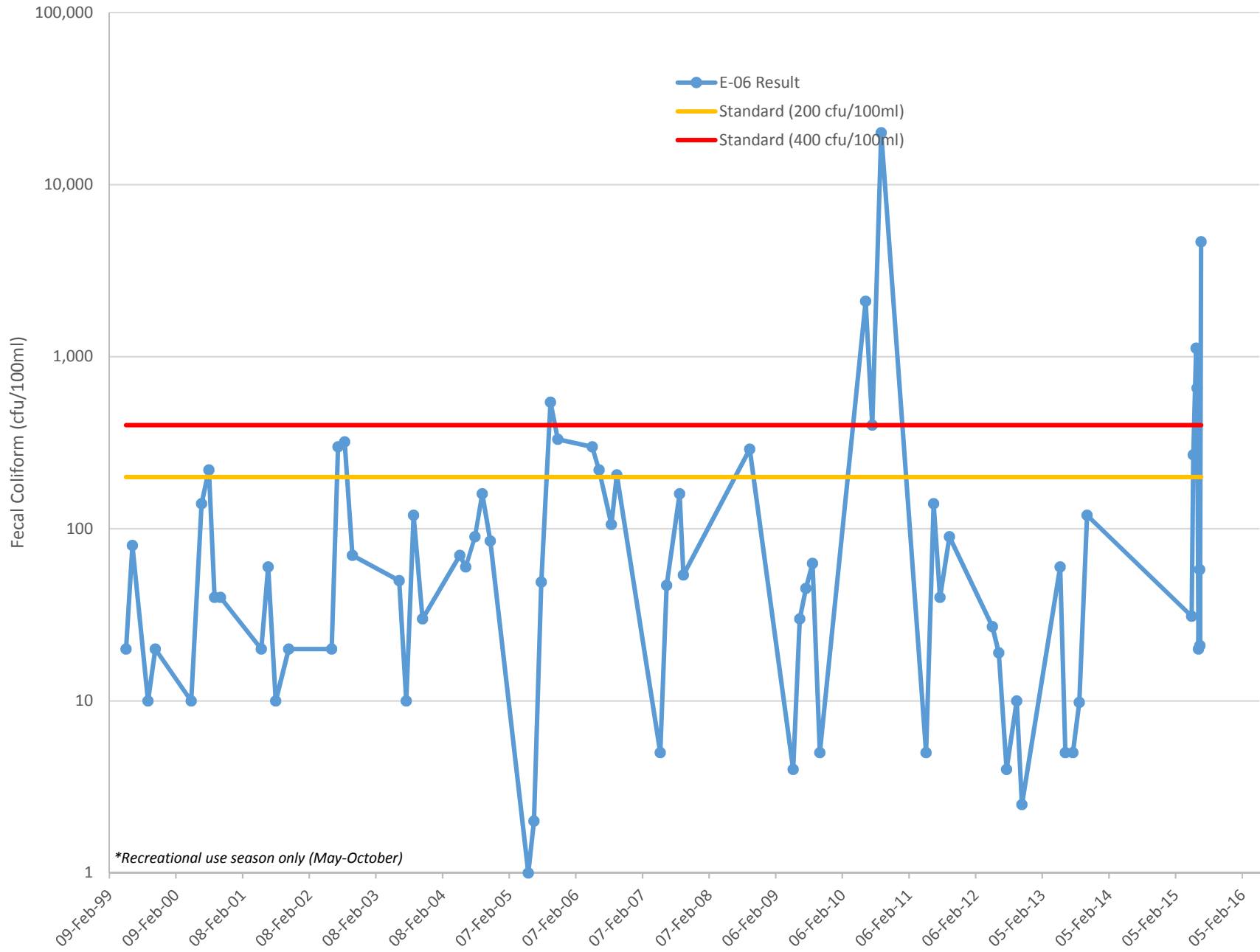


Figure 5-3
Fecal Coliform
Sangamon River Segment E-06

This page intentionally left blank.

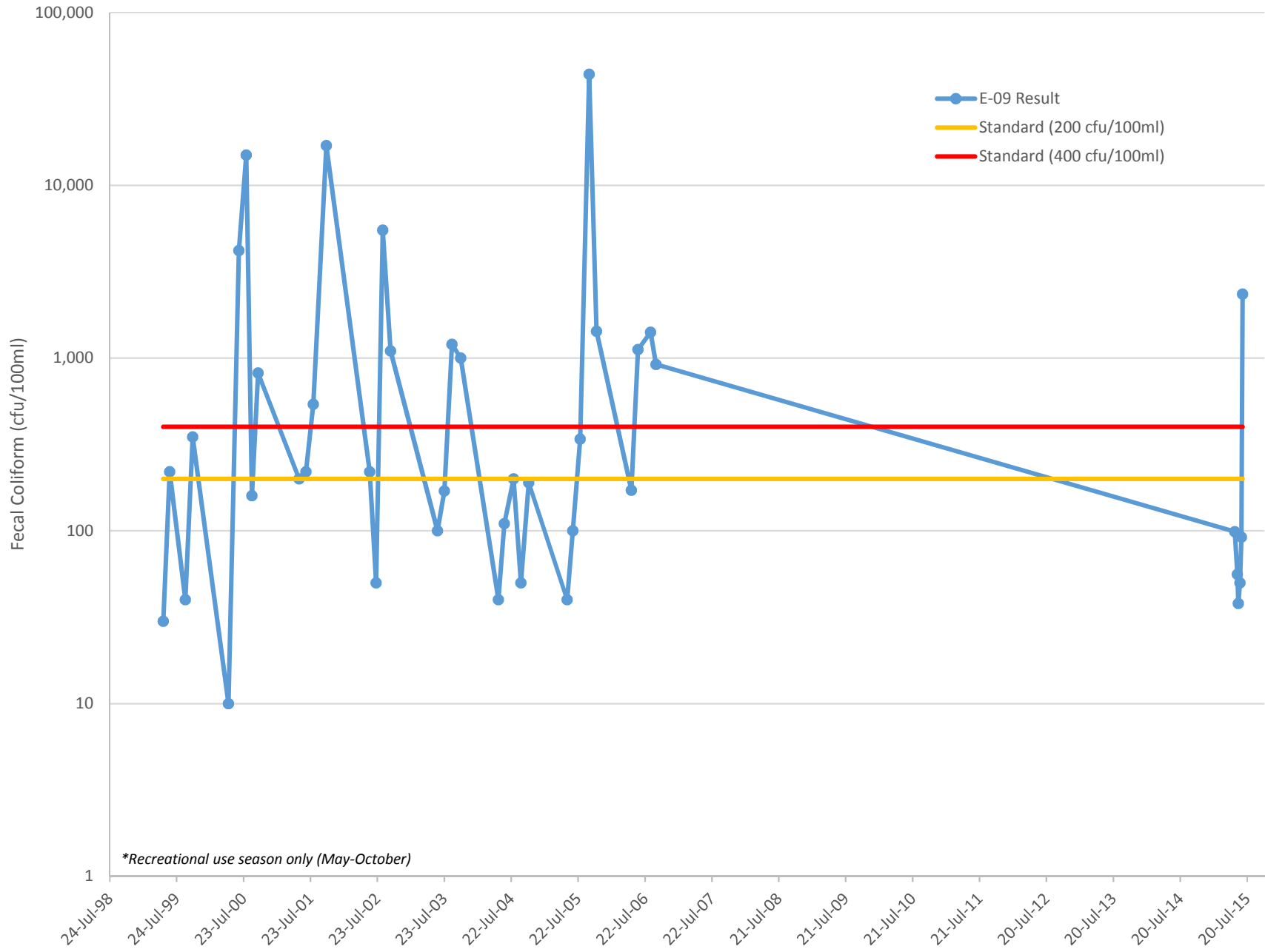


Figure 5-4
Fecal Coliform
Sangamon River Segment E-09

This page intentionally left blank.

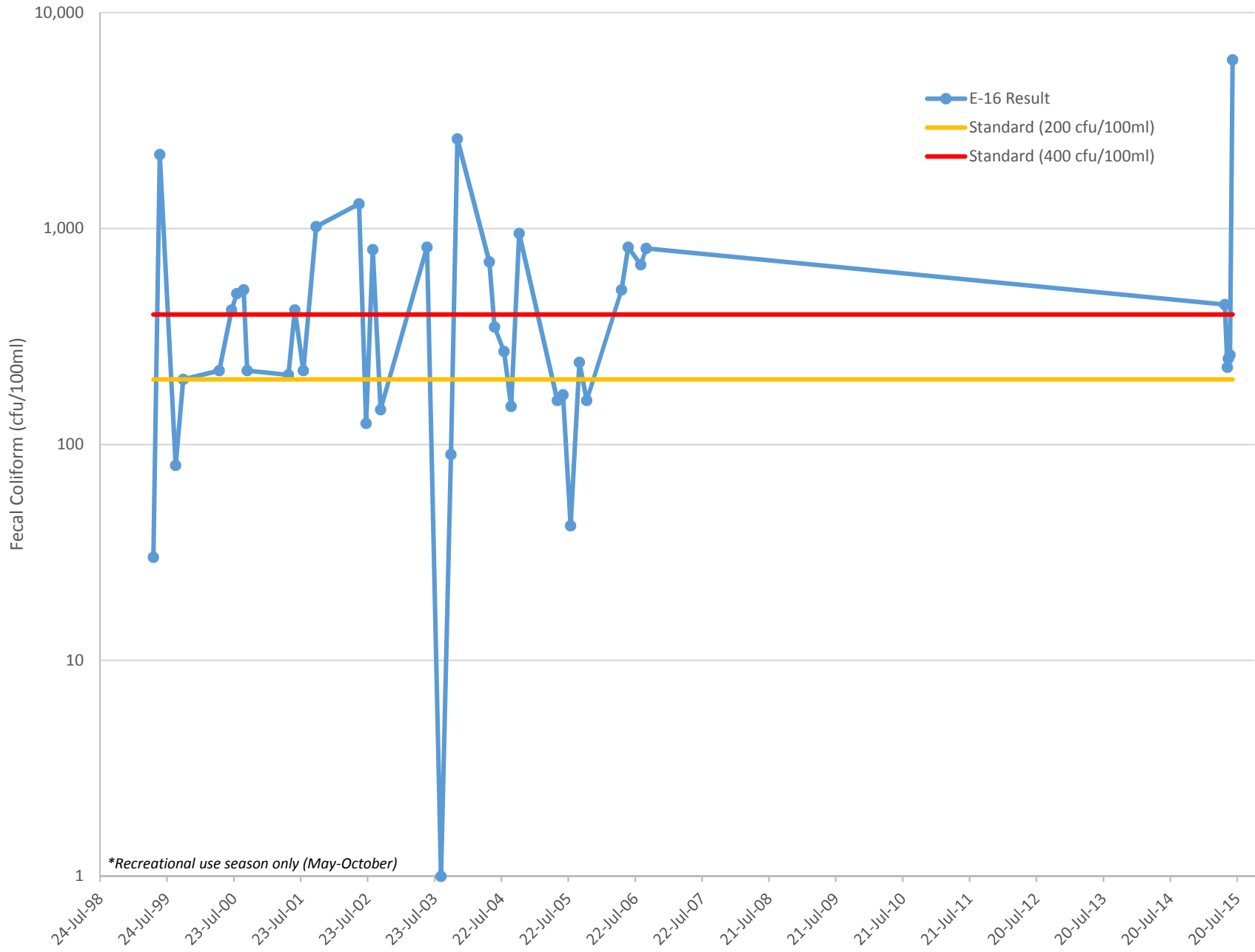


Figure 5-5
Fecal Coliform
Sangamon River Segment E-16

This page intentionally left blank.

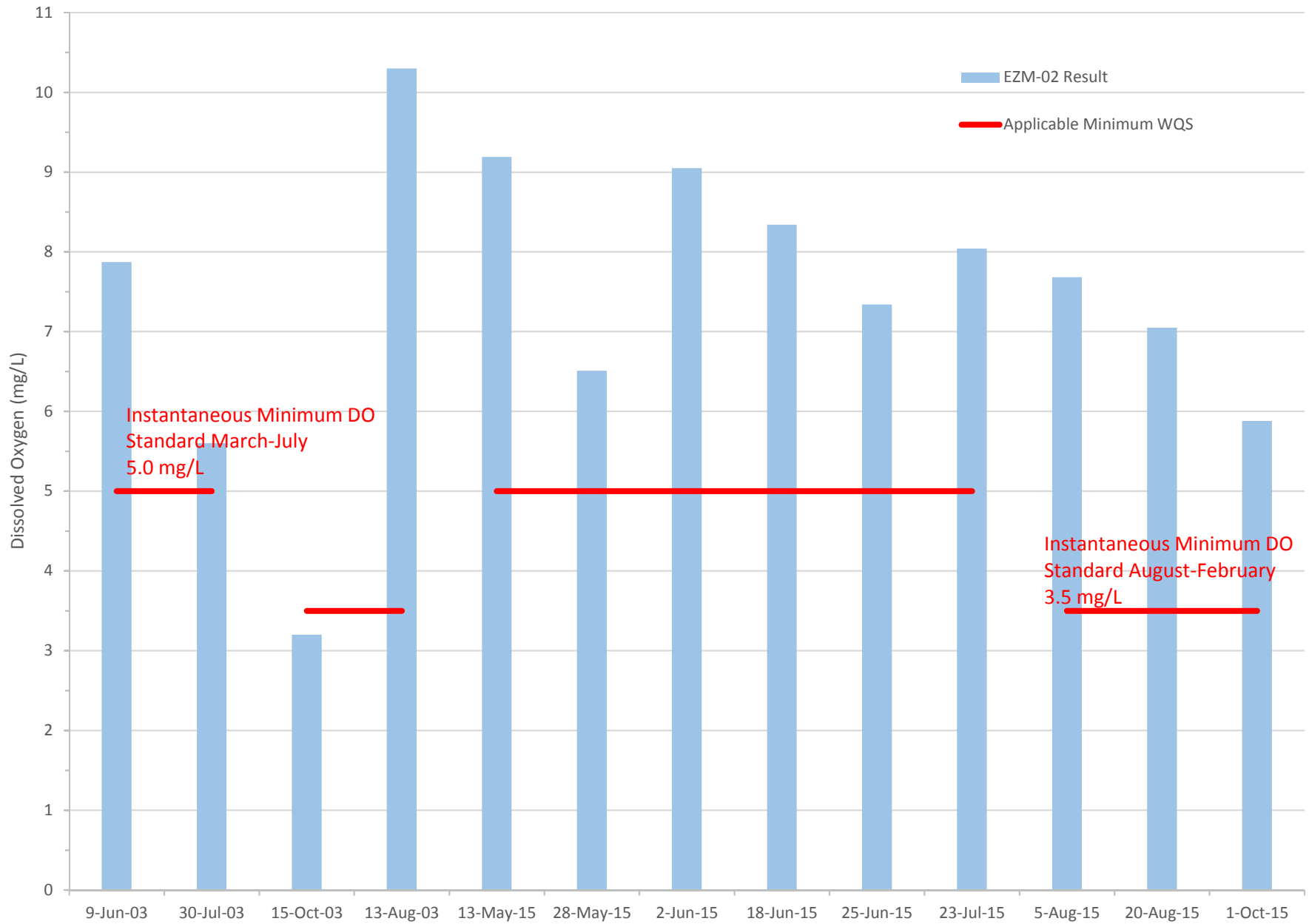


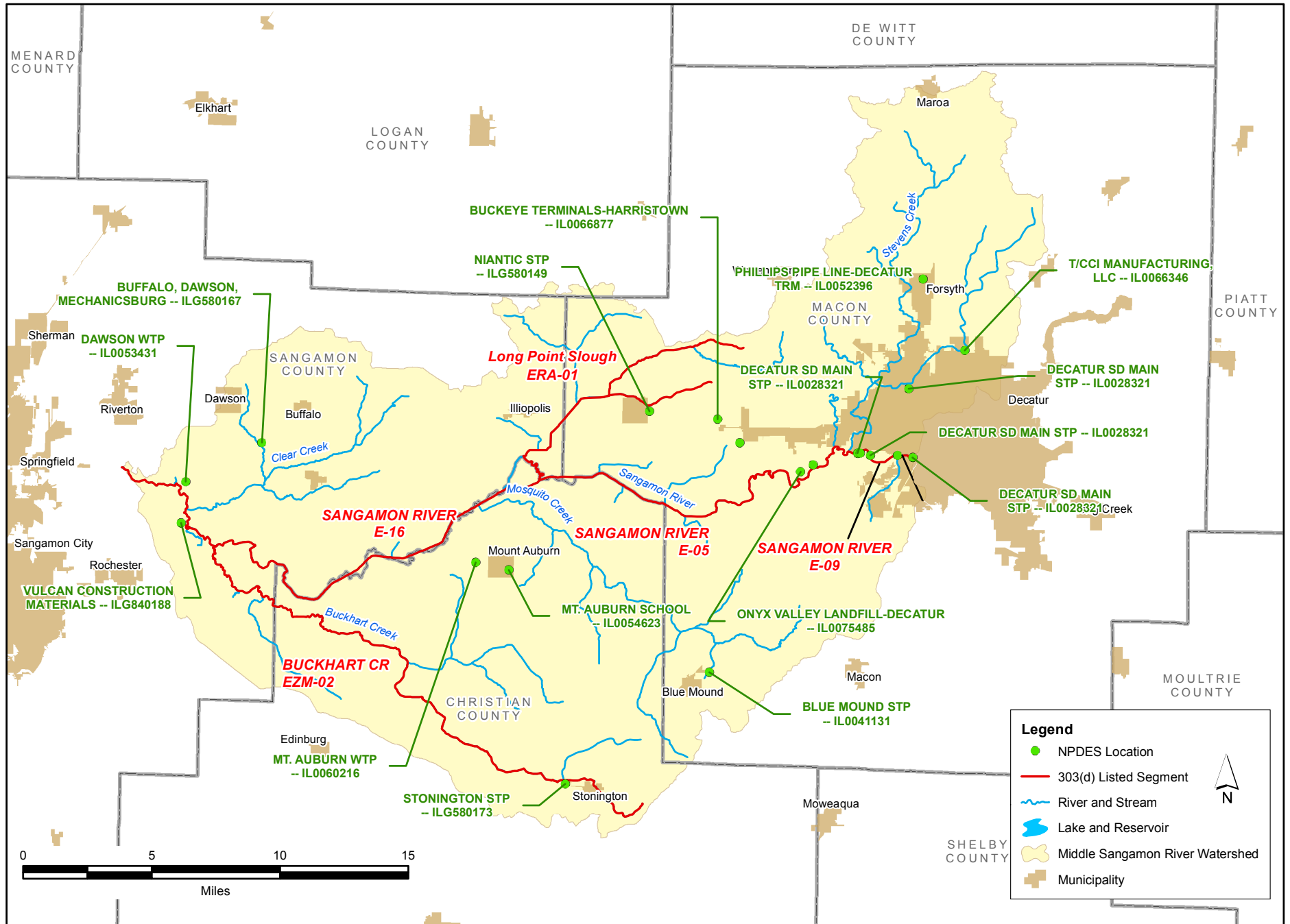
Figure 5-6
Dissolved Oxygen
Buckhart Creek (EZM-02)

This page intentionally left blank.



Figure 5-7
NVSS Concentrations
Long Point Slough (ERA-01) and Buckhart Creek (EZM-02)

This page intentionally left blank.



DRAFT



Middle Sangamon River NPDES Locations

FIGURE 5-8

This page intentionally left blank.

Section 6

Approach to Developing TMDL and Identification of Data Needs

Illinois EPA is currently developing TMDLs for pollutants that have numeric water quality standards. Pollutants without numeric water quality standards are addressed through the development of an LRS. Of the pollutants causing impairment to streams in the Middle Sangamon River watershed, fecal coliform and DO are the parameters with numeric water quality standards. Impairments caused by sedimentation/siltation in streams are based on narrative standards. Refer to **Table 1-1** for a full list of potential causes of impairment. Illinois EPA believes that addressing the parameters with numeric standards should lead to an overall improvement in water quality due to the interrelated nature of the other listed pollutants. Recommended technical approaches for developing TMDLs and LRSs are presented in this section. Additional data needs are also discussed.

6.1 Simple and Detailed Approaches for Developing TMDLs

The range of analyses used for developing TMDLs varies from simple to complex. Examples of a simple approach include mass-balance, load-duration, and simple watershed and receiving water models. Detailed approaches incorporate the use of complex watershed and receiving water models. Simplistic approaches typically require less data than detailed approaches. Therefore, simple analyses are recommended for the Middle Sangamon River watershed. Establishing a link between pollutant loads and resulting water quality is one of the most important steps in developing a TMDL. As discussed above, this link can be established through a variety of techniques. The objective of the remainder of this section is to recommend approaches for establishing these links for the constituents of concern in the Middle Sangamon River watershed.

6.2 Additional Data Needs for TMDL Development in the Middle Sangamon River Watershed

Table 6-1 contains summary information regarding data availability for impairments in the Middle Sangamon River watershed. This table also includes recommendations for additional data collection to support TMDL and LRS development.

Table 6-1 Data Availability and Data Needs for TMDL Development in the Middle Sangamon River Watershed

Impairment Parameter	Segment ID	Data Count	Period of Record	Additional Data Needs ⁽¹⁾
Fecal Coliform	Sangamon River E-05	56	2000-2015	Additional fecal coliform data collection was recommended to assess current condition
	Sangamon River E-06	70	2000-2015	None
	Sangamon River E-09	134	1978-2015	Additional fecal coliform data collection was recommended to assess current condition
	Sangamon River E-16	40	2000-2015	Additional fecal coliform data collection was recommended to assess current condition
Dissolved Oxygen	Buckhart Creek EZM-02	13	2003, 2015	Additional data collection was recommended to assess current condition. Synoptic data collection for flow, hydraulics, DO, temperature, nutrients, CBOD, and SOD also recommended.
Sedimentation & Siltation (as NVSS)	Long Point Slough ERA-01	3	2003	Additional data collection recommended to assess current condition.
	Buckhart Creek EZM-02	7	2003, 2013	Additional data collection recommended to assess impairment across multiple flow conditions

⁽¹⁾ Additional site-specific data were collected by Illinois EPA in 2013-2015 from impaired waterbodies in the Middle Sangamon River watershed. At the time of Stage 1 report publication, the results of the additional sampling were listed as provisional and were not incorporated into this document. All applicable data were incorporated in Stage 3 of the TMDL process (2016).

Although there are relatively high numbers of fecal coliform sample data points throughout the Sangamon River at the time of Stage 1 report development in 2014, three of the four impaired segments in the watershed were last sampled in 2004. In order to confirm impairment and better assess the current fecal coliform concentrations in these segments (E-05, E-09, and E-16), additional sample collection was recommended and subsequently performed prior to development of this report. Sample collection at various times of the recreation season and over a range of flow conditions is most beneficial for assessing the entire range of conditions that may occur within each segment and provides a more accurate depiction of potential factors influencing the fecal coliform impairments in these segments. Illinois EPA collected multiple fecal coliform samples from impaired waterbodies in this watershed in 2013-2015. Once the necessary quality control measures were performed, these data were incorporated into this report.

The available DO dataset for Buckhart Creek at the time of the Stage 1 report publication consisted of four measurements collected in 2003. Further data collection was recommended for verification of impairment and, if needed, for development of a water quality model to calculate a DO TMDL for Buckhart Creek. It was recommended that future data collection would ideally include a synoptic (snapshot in time) water quality survey of the entire reach and potentially its major tributaries. Specific data requirements for a robust model development include measurements of flow, hydraulics, DO, temperature, major nutrients (nitrogen and phosphorus), sediment oxygen demand (SOD), and carbonaceous biochemical oxygen demand (CBOD). Illinois EPA collected additional DO data and habitat information at Buckhart Creek in 2013-2015, which have been incorporated into this report following completion of the necessary quality control measures. The additional sample results did not include any exceedances of the applicable DO

standards and this segment has subsequently been recommended for de-listing for impairment caused by low DO.

The available NVSS dataset for Buckhart Creek and Long Point Slough is limited in sample size and period of record. Recommendations for additional data collection to assess these impairments were not included in the Stage 1 report due to lack of LRS target values to address sedimentation and siltation impairments at the time of Stage 1 report publication. Although these impairments are addressed in this Stage 3 report, additional data collection in the future would allow for more reliable estimates of load reductions necessary to meet the applicable target.

6.3 Approaches for Developing TMDLs and LRSs for Stream Segments in Middle Sangamon River Watershed

6.3.1 Recommended Approach for Fecal Coliform TMDLs in the Sangamon River

The recommended approach for developing TMDLs for fecal coliform on the impaired segments is the load-duration curve method. The load-duration curve methodology uses the cumulative frequency distribution of stream flow and pollutant concentration data to estimate the allowable loads for a waterbody.

6.3.2 Recommended Approach for DO TMDLs in Buckhart Creek

The recommended approach to TMDL development for DO impairments in streams typically consists of the development and parameterization of a series of QUAL2K models. QUAL2K is an updated spreadsheet-based version of the well-known and USEPA-supported QUAL2E model. The model simulates DO dynamics as a function of nitrogenous and CBOD, atmospheric re-aeration, SOD, and phytoplankton photosynthesis and respiration. The model also simulates the fate and transport of nutrients and BOD and the presence and abundance of phytoplankton (as chlorophyll-a). Stream hydrodynamics and temperature are important controlling parameters in the model. The model is suited to steady-state simulations.

As discussed in Section 6.2, more recent sampling performed in Buckhart Creek by Illinois EPA showed that DO levels in the waterbody meet the applicable standards. As a result, this segment is recommended for removal from the 2018 303(d) list for impairment caused by low DO.

6.3.3 Recommended Approach for Siltation/Sedimentation Evaluation

Illinois EPA developed a watershed-specific target to address impairment caused by excess siltation/sedimentation in the Long Point Slough and Buckhart Creek prior to Stage 3 of TMDL development. Illinois EPA provided a target value for NVSS concentrations as a means of addressing these impairments. Potential sources of siltation and sedimentation and NVSS have been identified as agriculture, livestock, and urban runoff in the watershed. The recommended approach for developing LRSs for sedimentation and siltation is the development of load-duration curves to assess NVSS concentrations. The load-duration curve methodology uses the cumulative frequency distribution of stream flow and pollutant concentration data to estimate the allowable loads for a waterbody.

This page intentionally left blank.

Section 7

Methodology Development for the Middle Sangamon River Watershed

7.1 Methodology Overview

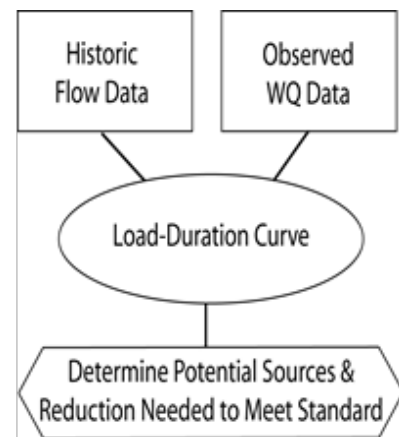
Table 7-1 contains information on the methodologies selected and used to develop TMDLs and LRSs for impaired waterbodies within the Middle Sangamon River Watershed. As discussed in Sections 5 and 6, the review of historical data and additional data collected in 2015 as part of Stage 2 of the TMDL process show that segment EZM-02 of the Buckhart Creek is no longer impaired by low DO. As a result, this segment is recommended for removal from the 2018 303(d) list for impairment caused by low DO. The development of load duration curves is the recommended methodology for the remaining impaired segments.

Table 7-1 Impaired Waterbodies in Middle Sangamon River Watershed and Assessment Methodologies

Segment ID	Segment Name	Potential Causes of Impairment	Assessment Type	Methodology
E-05	Sangamon River	Fecal Coliform	TMDL	Load Duration Curve
E-06	Sangamon River	Fecal Coliform	TMDL	Load Duration Curve
E-09	Sangamon River	Fecal Coliform	TMDL	Load Duration Curve
E-16	Sangamon River	Fecal Coliform	TMDL	Load Duration Curve
ERA-01	Long Point Slough	<i>Sedimentation/Siltation</i>	LRS	Load Duration Curve
EZM-02	Buckhart Creek	Dissolved Oxygen	No TMDL Developed	No Impairment – Recommended for 2018 delisting
		<i>Sedimentation/Siltation</i>	LRS	Load Duration Curve

7.1.1 Load-Duration Curve Overview

Loading capacity analyses were performed for stream impairments caused by fecal coliform and sedimentation/siltation through the development of a series of load-duration curves. A load-duration curve is a graphical representation of the maximum load of a pollutant that a stream segment can assimilate over a range of flow scenarios while still meeting the instream water quality standard. The load-duration curve approach utilizes historical flow data and observed water quality data to assess the magnitude and frequency of exceedences as well as to determine the flow scenarios when exceedences occur most often. This information is then used to



calculate load allocations and reductions needed to meet instream standards under all flow scenarios.

7.2 Methodology Development

The following sections further discuss and describe the methodologies utilized to examine impairments in the stream segments of the Middle Sangamon River Watershed.

7.2.1 Load Duration Curve Development

Load duration curves are used for assessment and comparison of the range of loads allowable throughout the flow regime of a stream. This approach was used to characterize the current loading of fecal coliform in impaired segments of the Sangamon River (E-05, E-06, E-09, and E-16) and NVSS concentrations in Long Point Slough (ERA-01) and Buckhart Creek (EZM-02).

7.2.1.1 Watershed Delineation and Flow Estimation

Watersheds for the areas contributing directly to each of the impaired stream segments were delineated using GIS analyses of data layers provided in the National Elevation Dataset (NED). **Figure 7-1** shows the location of the water quality stations on each segment as well as the boundary of the GIS-delineated watersheds.

Flow data corresponding to each water quality sample is required for development of a load duration curve. No active USGS stream gages currently exist in the Middle Sangamon River Watershed; therefore, as discussed in Section 2.6.3 of this report, two surrogate gages were selected for use in estimating flows: USGS gage 5573540 Sangamon River at Rt. 48 in Decatur, Illinois and USGS gage 5592050 Robinson Creek near Shelbyville, Illinois. USGS gage 5573540 (Sangamon River at Rt 48) is located at the upper end of the Middle Sangamon River watershed just above impaired segment E-05 and has a watershed area of approximately 938 square miles. USGS gage 5592050 (Robinson Creek near Shelbyville) is located approximately 15 miles south of the Middle Sangamon River Watershed and has a drainage area of approximately 93.1 square miles.

Data from these gages were used to estimate flow values at locations in the Middle Sangamon River Watershed using the drainage area ratio method represented by the following equation:

$$Q_{\text{gaged}} \left(\frac{\text{Area}_{\text{ungaged}}}{\text{Area}_{\text{gaged}}} \right) = Q_{\text{ungaged}}$$

where

Q_{gaged}	=	Streamflow of the gaged basin
Q_{ungaged}	=	Streamflow of the ungaged basin
$\text{Area}_{\text{gaged}}$	=	Area of the gaged basin
$\text{Area}_{\text{ungaged}}$	=	Area of the ungaged basin

The assumption behind the equation is that the flow per unit area is equivalent in watersheds with similar characteristics. Therefore, the flow per unit area in the gaged watershed multiplied by the area of the ungaged watershed estimates the flow for the ungaged watershed.

Data downloaded through the USGS for the surrogate gage for the available period of record were adjusted to account for point source influence in the watershed upstream of the gaging station. The watershed area of each impaired segment, the surrogate gage used, the gage watershed, and the approximate gage watershed to impaired segment watershed area ratios used in load duration curve development are provided in **Table 7-2**.

Table 7-2 Watershed Areas, Surrogate Gages, and Watershed Area Ratios for load Duration Curve Assessments in the Middle Sangamon River Watershed

Impaired Segment	Watershed Area (square miles)	Surrogate Stream Gage Used	Watershed Area Ratio
Sangamon River E-06	878	USGS 5573540	0.94
Sangamon River E-09	938	USGS 5573540	1.00
Sangamon River E-05	1,004	USGS 5573540	1.07
Sangamon River E-16	1,237	USGS 5573540	1.32
Long Point Slough ERA-01	61	USGS 5592050	0.65
Buckhart Creek EZM-02	97	USGS 5592050	1.04

7.2.1.2 Fecal Coliform in Sangamon River Segments E-05, E-06, E-09, and E-16

Load duration curves for fecal coliform in the impaired segments of the Sangamon River were generated by ranking the estimated daily flow data generated through the area ratio method discussed above, determining the percent of days these flows were exceeded, and then graphically plotting the results. Because the fecal coliform standard is seasonal and is applicable between the months of May and October, only flows recorded during this time period were used in the analysis. The flows in the duration curve were then multiplied by the chronic water quality standard of 200 cfu/100mL to generate a load duration curve. Fecal coliform data collected between May and October were compiled from historical data amassed during Stage 1 of TMDL development and additional data collected by Illinois EPA in 2015. These data were then paired with the corresponding flows for the sampling dates and plotted against the load duration curves for each impaired segment **Figures 7-2** through **7-5**. It should be noted that there is a significant NPDES discharger (Sanitary District of Decatur, IL0028321) located downstream of the USGS gage. The addition of the facility's average flows into the load duration curves significantly flattens the curves during low flow and dry conditions.

A total of 56 data points were available to calculate actual fecal coliform loads in segment E-05 during the May-October recreational use season. The load duration curve constructed for E-05 shows that, based on the lowest chronic standard of 200 cfu/100ml, potential exceedances for fecal coliform occur with regularity under all flow conditions. Based on the available data, a somewhat lower proportion of samples exceed the load limits under lower flows than during periods of high flow **Figure 7-2**.

Sixteen of the 70 fecal coliform samples collected on segment E-06 during the May-October recreation season represents loads in excess of the calculated allowable load based on the 200

cfu/100ml criteria. Exceedances along this segment of the Sangamon River occurred under all but the lowest flow condition. Exceedances again appear to be more common at higher flows than under low flow conditions **Figure 7-3**.

Twenty of the 41 fecal coliform samples available for segment E-09 that were collected during the May-October recreation season represent loads in excess of the calculated allowable load. Exceedances along this segment of the Sangamon River occurred under all flow conditions. Exceedances in this segment appear to occur with greatest frequency at the lowest flow condition, however; the sample size in the lowest flow categories is relatively small **Figure 7-4**.

Of the 44 fecal coliform samples collected from segment E-16 during the May-October recreation season, 31 samples represent loads in excess of the calculated allowable load. Exceedances along this segment of the Sangamon River occurred under all flow conditions and occur with greatest frequency under the highest flow categories **Figure 7-5**.

Spreadsheets used for the calculation of the load duration curves are provided in Appendix D.

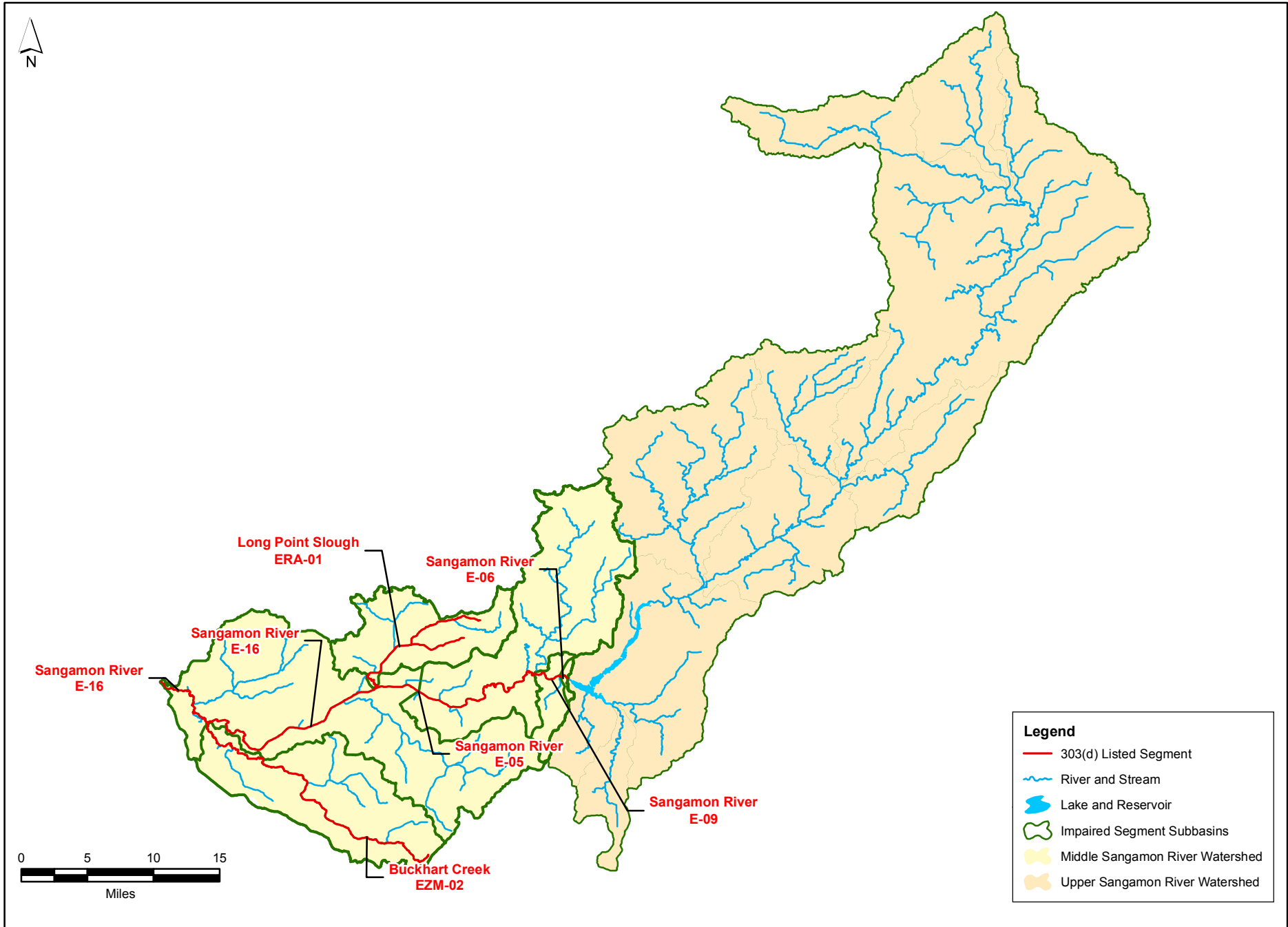
7.2.1.3 Sedimentation and Siltation in Long Point Slough (ERA-01) and Buckhart Creek (EZM-02)

Load duration curves were developed for NVSS to address sedimentation/siltation impairments in Long Point Slough (ERA-01) and segment EZM-02 of Buckhart Creek (**Figures 7-6 and 7-7**). Curves were generated by determining the percent of days each estimated flow was exceeded, and then multiplying the estimated flows by the watershed-specific LRS target value of 23.1mg/L of NVSS. NVSS is calculated as the difference between paired TSS and TVS data. NVSS concentration data compiled during TMDL development were then paired with the corresponding flows for the sampling dates to calculate approximate loads. These loads were then plotted against the flow duration curve developed for each segment.

The available dataset for NVSS at Long Point Slough is limited to three samples collected in 2003. Two of the three samples exceed the water quality target value for NVSS. All samples were collected under dry conditions, significantly limiting the efficacy of the load duration curve methodology for assessing reduction needs at various flow rates. Additional data collection is needed to fully evaluate the sedimentation/siltation impairment on this segment.

Seven paired TSS and TVS data points were available for calculating NVSS concentrations from Segment EZM-02 of Buckhart Creek. Samples were collected under moist, dry, and low flow conditions. Three of the seven data points exceed the LRS target value of 23.1 mg/L. All exceedances were collected during low flow and dry conditions; however, the available dataset is not sufficient for assessing the potential for exceedances at higher flows.

Appendix D contains spreadsheets used for the calculation of the load duration curves for NVSS.



**Middle Sangamom River
Subbasin Delineation for Flow Calculations**

FIGURE 7-1

This page intentionally left blank.

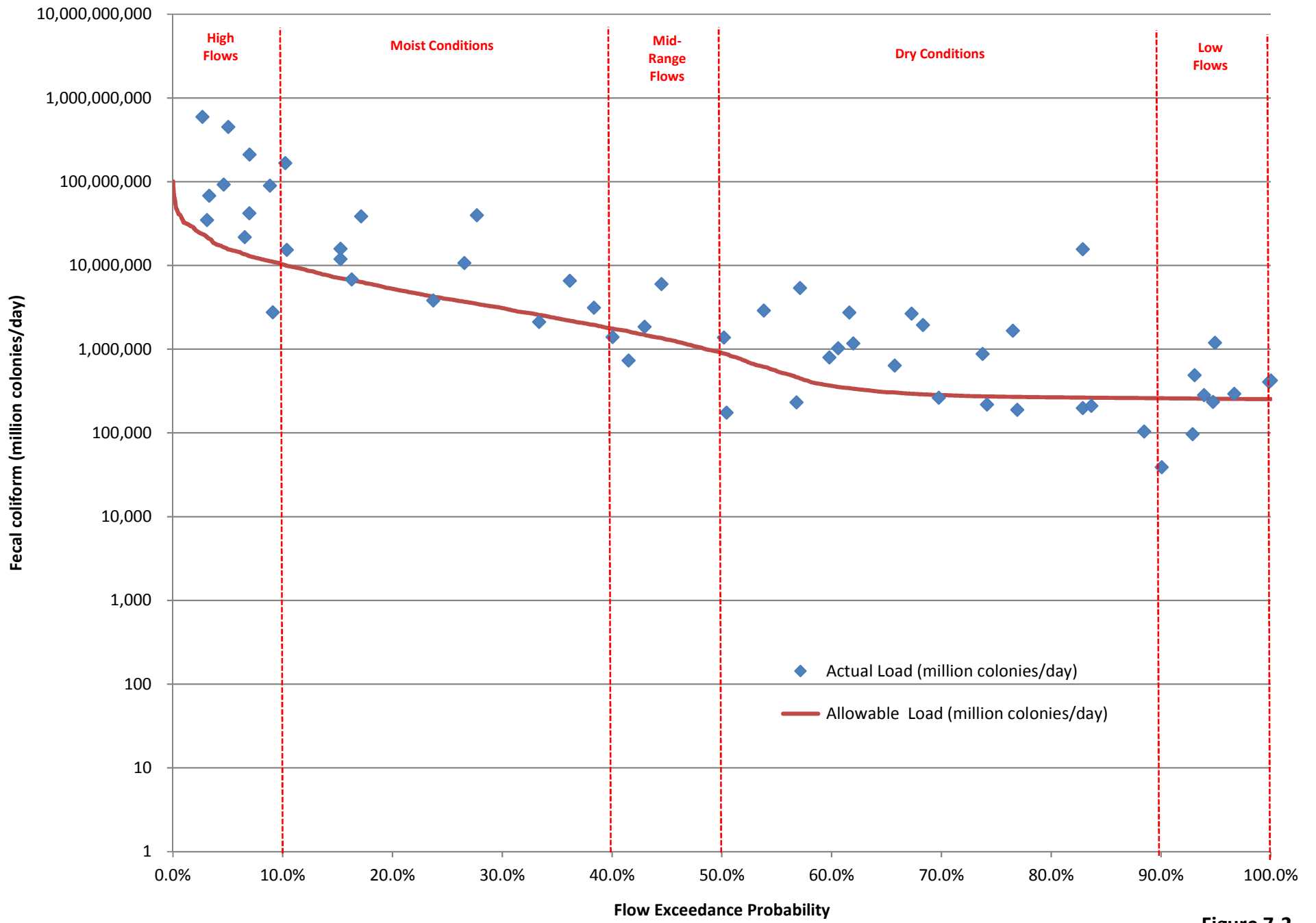


Figure 7-2
Sangamon River (E-05)
Fecal Coliform Load Duration Curve

This page intentionally left blank.

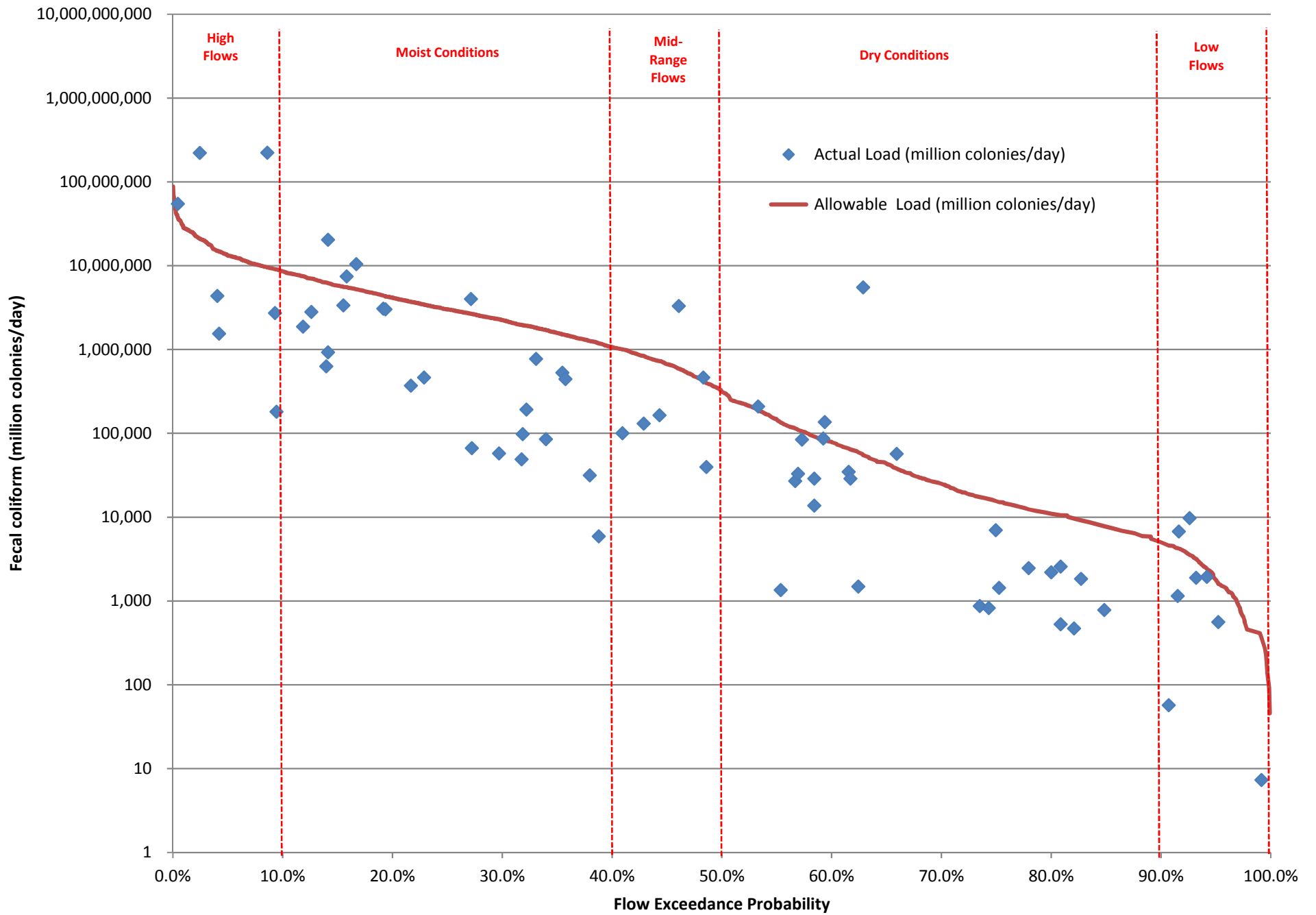


Figure 7-3
Sangamon River (E-06)
Fecal coliform Load Duration Curve

This page intentionally left blank.

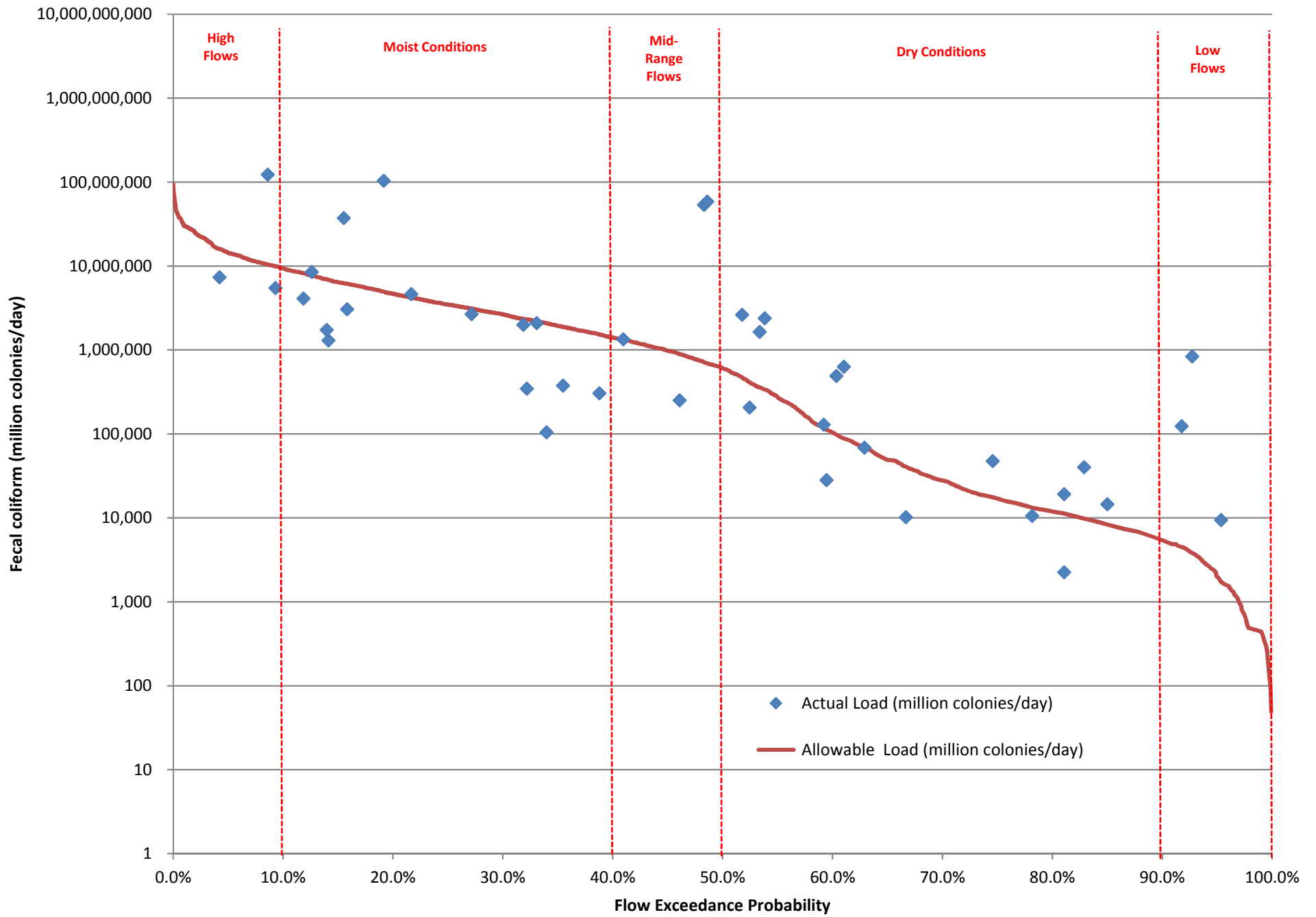


Figure 7-4
Sangamon River (E-09)
Fecal coliform Load Duration Curve

This page intentionally left blank.

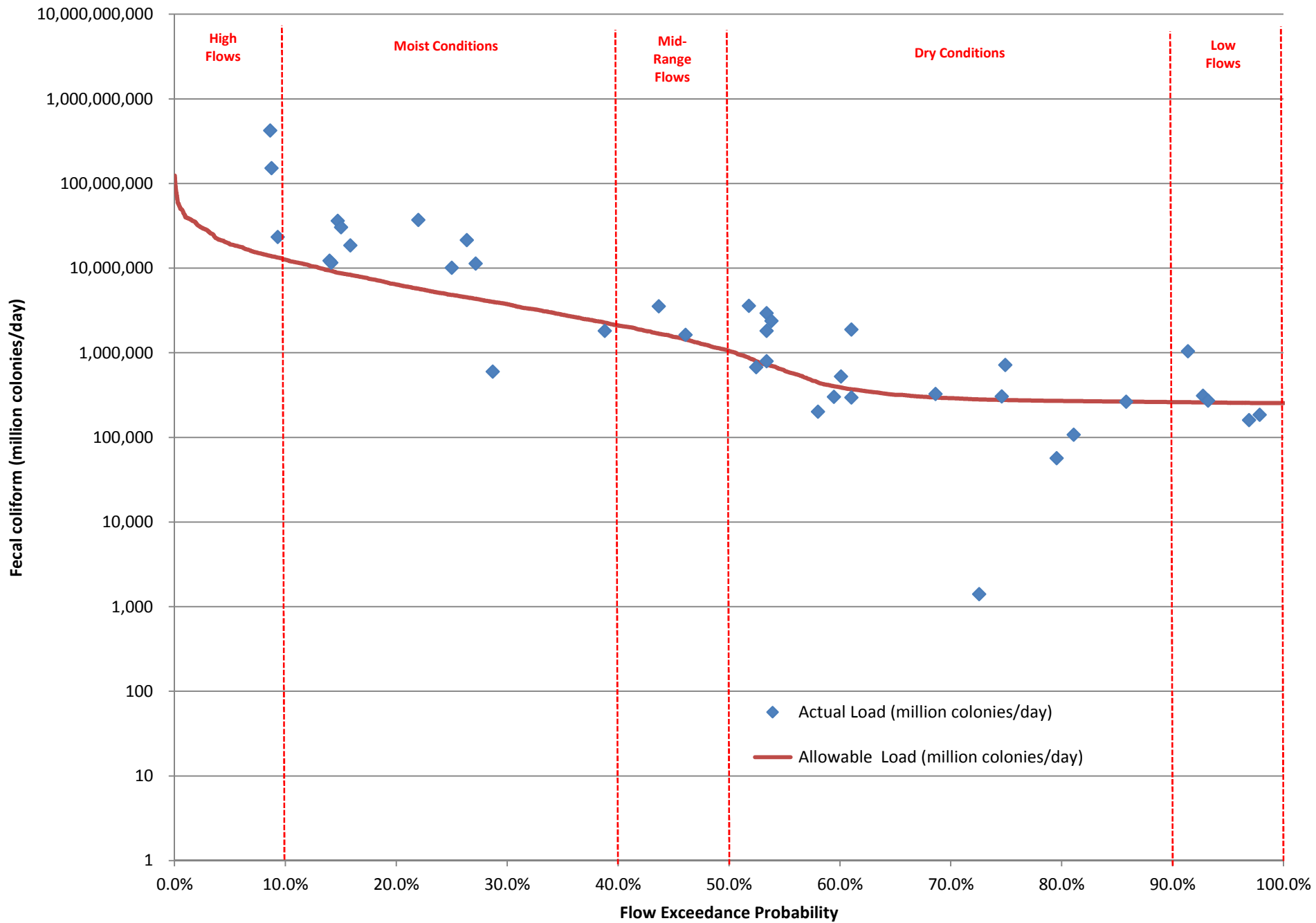


Figure 7-5
Sangamon River (E-16)
Fecal Coliform Load Duration Curve

This page intentionally left blank.

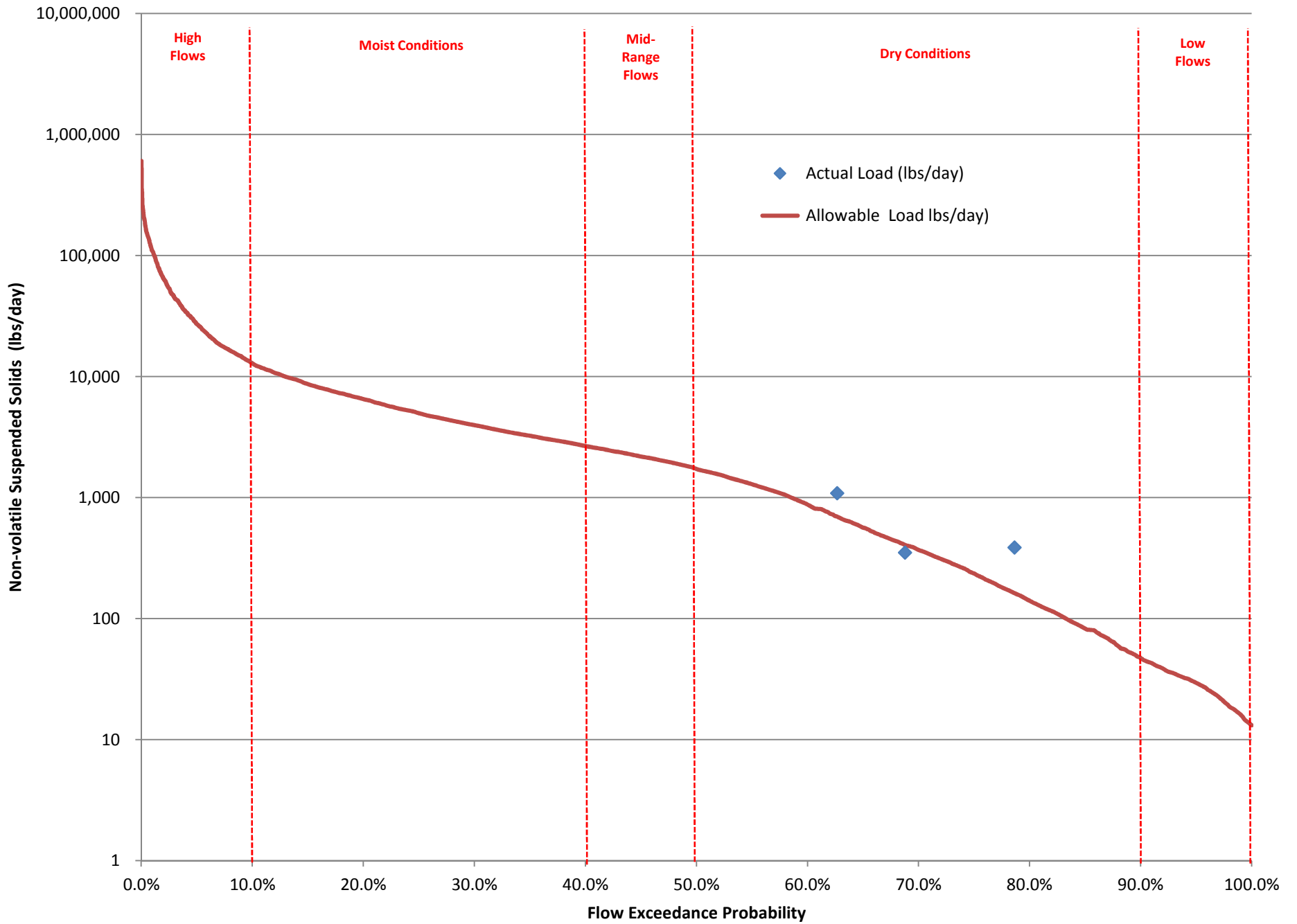


Figure 7-6
 Long Point Slough (ERA-01)
 Non-volatile Suspended Solids Load Duration Curve

This page intentionally left blank.

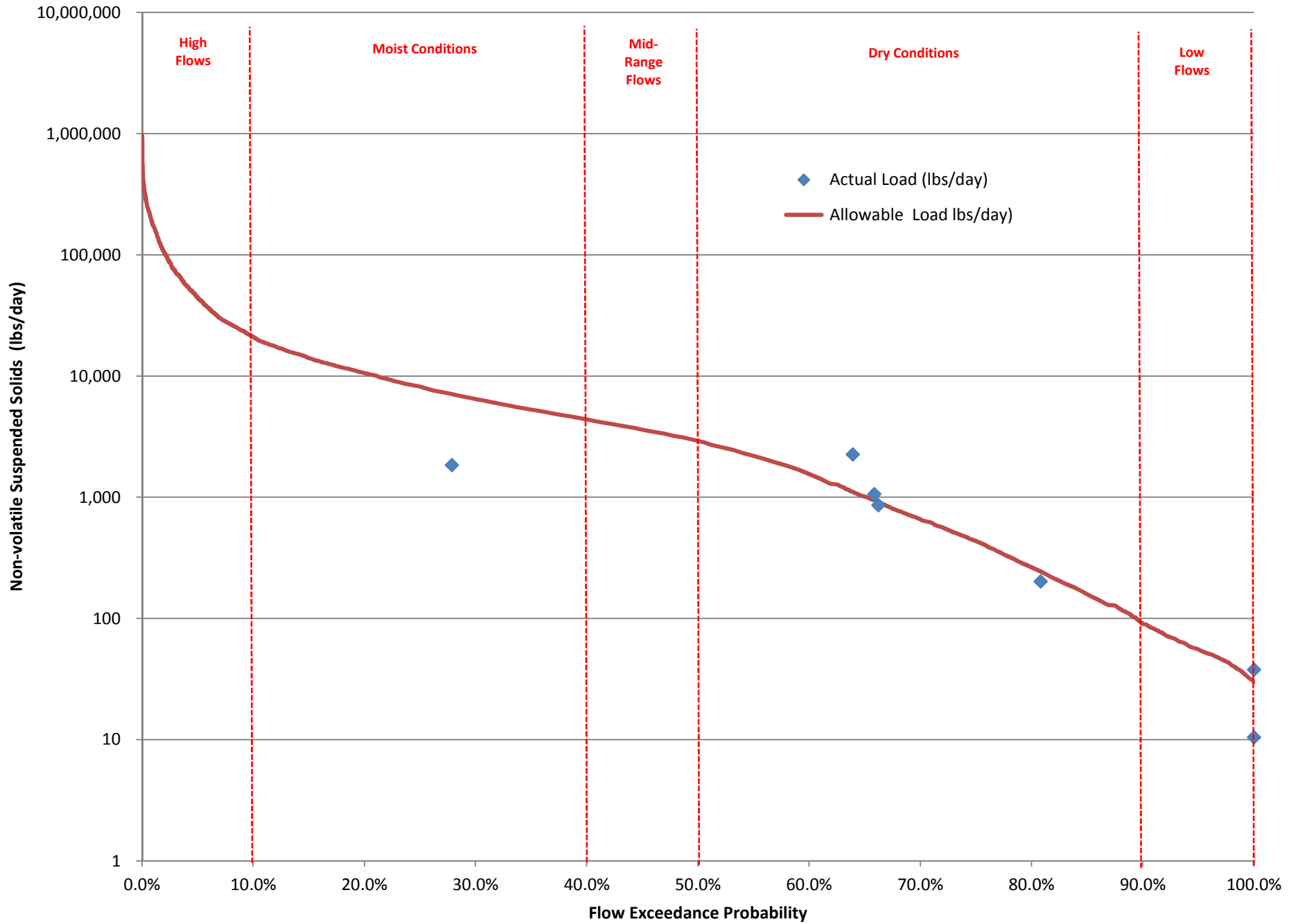


Figure 7-7
 Buckhart Creek(EZM-02)
 Non-volatile Suspended Solids Load Duration Curve

This page intentionally left blank.

Section 8

Total Maximum Daily Loads for the Middle Sangamon River Watershed

8.1 TMDL Endpoints for the Middle Sangamon River Watershed

The TMDL endpoints and LRS target values for impairments in the Middle Sangamon River watershed are summarized in **Table 8-1**. The fecal coliform endpoints listed are based on protection of the primary contact recreation use. A numeric water quality standard exists for fecal coliform and it is assessed via the TMDL process and the TMDL endpoints directly correlate to the lowest applicable water quality standard established for a given parameter. The sedimentation and siltation endpoint is a watershed-specific LRS target value for NVSS developed by Illinois EPA to protect the aquatic life use. The LRS target values are voluntary measures and are intended to serve as planning tools for overall water quality improvement strategies in the watershed.

Table 8-1 TMDL Endpoints and Average Observed Concentrations for Impaired Constituents in the Middle Sangamon River Watershed

Segment Name	Segment ID	Potential Causes of Impairment	Assessment Type	TMDL Endpoint or Target Value
Sangamon River	E-05	Fecal Coliform	TMDL	200 cfu/100 ml
	E-06	Fecal Coliform	TMDL	200 cfu/100 ml
	E-09	Fecal Coliform	TMDL	200 cfu/100 ml
	E-16	Fecal Coliform	TMDL	200 cfu/100 ml
Long Point Slough	ERA-01	<i>Sedimentation/Siltation</i>	LRS	23.1 mg/L of NVSS
Buckhart Creek	EZM-02	Dissolved Oxygen	No TMDL Developed ¹	
		<i>Sedimentation/Siltation</i>	LRS	23.1 mg/L of NVSS

¹ Additional sample collection as part of Stage 2 efforts confirmed that the stream segment is no longer impaired by low DO

8.2 Pollutant Sources and Linkages

Potential pollutant sources for impaired streams in the Middle Sangamon River Watershed include both point and nonpoint sources as described in Section 5 of this report. Fecal coliform impairment in the watershed is likely caused by a combination of urban/rural stormwater and point sources while sediment loading likely originates in urban/rural stormwater, area agricultural practices, and stream modifications (streambank erosion, channelization, etc).

Load duration curves developed for the fecal coliform TMDLs and the sedimentation/siltation LRS assessments are discussed in this section. Load duration curves are useful in that they provide a link between historical sampling values and hydrologic condition. **Table 8-2** provides an example of source area relationship to hydrologic condition developed by USEPA.

Table 8-2 Example Source Area/Hydrologic Condition Considerations (USEPA, 2007)

Contributing Source Area	Duration Curve Zone				
	High Flow	Moist	Mid-Range	Dry	Low Flow
Point Source				M	H
Onsite Wastewater System			H	M	
Riparian Areas		H	H	H	
Stormwater: Impervious Areas		H	H	H	
Combined sewer overflows	H	H	H		
Stormwater: Upland	H	H	M		
Bank Erosion	H	M			

Note: potential relative importance of source area to contribute loads under given hydrologic conditions (H: High, M: Medium)

Further discussion regarding pollutant sources is provided throughout this section. Implementation activities designed to reduce loading from the potential sources are outlined in Section 9.

8.3 TMDL Allocation

As explained in the Section 1 of this report, the TMDLs for impaired segments in the Middle Sangamon River Watershed address the following equation:

$$\text{TMDL} = \text{LC} = \Sigma \text{WLA} + \Sigma \text{LA} + \text{MOS} + \text{RC}$$

- where:
- LC = Loading capacity - the maximum amount of pollutant loading a waterbody can receive without violating water quality standards
 - WLA = Waste load allocation - the portion of the TMDL allocated to existing or future point sources
 - LA = Load allocation - the portion of the TMDL allocated to existing or future nonpoint sources and natural background
 - MOS = Margin of safety - an accounting of uncertainty about the relationship between pollutant loads and receiving water quality
 - RC = Reserve capacity - the portion of the load explicitly set aside for future population growth and additional development in the watershed

Each of these elements is discussed in this section as well as consideration of seasonal variation in the TMDL calculation.

8.3.1 TMDL for Fecal Coliform in Sangamon River Segments E-05, E-06, E-09, and E-16

Sangamon River segments E-05, E-06, E-09, and E-16 are listed for impairment of the primary contact recreation use caused by elevated fecal coliform concentrations. Load duration curves were developed for each segment (see Section 7) to determine load reductions needed to meet the instream water quality standard at varying flow scenarios.

8.3.1.1 Target Loading Capacity

The LC is the maximum amount of fecal coliform bacteria the impaired waterbody can receive and still meet the water quality standard. The allowable fecal coliform loads that can be generated in the watershed and still maintain the geometric mean chronic standard of 200 cfu/100mL were determined with the methodology discussed in Section 7. The fecal coliform loading capacity according to flow is presented in **Table 8-3**.

Table 8-3 Estimated Fecal Coliform Loading Capacities under Various Flow Conditions in the Middle Sangamon River

Estimated Mean Daily Flow (cfs)	Allowable Load (million colonies/day)
1	4,894
10	48,932
100	489,332
500	2,446,689
1,000	4,893,696
10,000	48,936,960
25,000	122,342,400

8.3.1.2 Seasonal Variation

Consideration of seasonality is inherent in the load duration analysis. Because the load duration analysis represents the range of expected stream flows, the TMDLs have been calculated to meet the standard during all flow conditions.

The critical period for fecal coliform is the primary contact recreation season which is May through October. There is no one critical flow condition during the recreation season. The fecal coliform standard must be met under all flow scenarios and standard exceedances have occurred during the majority of flow scenarios. By using the load duration curve method, all of these "critical conditions" are accounted for in the loading allocations.

8.3.1.3 Margin of Safety

The MOS can be implicit (incorporated into the TMDL analysis through conservative assumptions) or explicit (expressed in the TMDL as a portion of the loadings) or a combination of both. The MOS for each of these fecal coliform TMDLs is implicit as the analysis used the more conservative 200 cfu/100mL chronic standard for developing the loading capacity as opposed to the single-sample, acute maximum standard of 400 cfu/100mL. In addition, the TMDL does not account for die-off of bacteria which occurs at an unquantified rate as bacteria move downstream in the system.

8.3.1.4 Waste Load Allocation

There are 18 NPDES permitted discharges (14 facilities and 4 MS4 permits) within the modeled portion of the Middle Sangamon River watershed (see Section 5.2). Additional discharges exist in the Upper Sangamon River watershed upstream; however, these facilities are included in upstream TMDLs and applicable WLAs have previously been assigned. Seven of the discharges within the Middle Sangamon River watershed are associated with private or municipal sewage treatment facilities for which fecal coliform WLAs are appropriate. Four of these municipal

treatment facilities have applied for and received a year-round disinfection exemption, which allows a facility to discharge wastewater without disinfection. However, all of these exempted treatment facilities are required to comply with the geometric mean fecal coliform water quality standard of 200 cfu/100 mL at the end of the exempted reach as determined by Illinois EPA. Exempted facilities in the Middle Sangamon River watershed and their exempted reaches are shown in **Figure 8-1**. As a result of this requirement, the fecal coliform standard (200 cfu/100ml) and each of the exempted facilities' design average flow (DAF) values were used to set the WLA for low and moderate flow levels. Each of the facilities with disinfection exemptions will be required to reapply for their disinfection exemption prior to permit renewals. Expansion of treatment operations as a result of increased development in the area will require further review of disinfection exemptions and provide the opportunity to implement disinfection requirements should they be necessary to meet instream TMDL targets. The likely reduction in fecal coliform waste loads effectively provides a conservative estimate should population growth increase in the watershed.

The Sanitary District of Decatur (IL0028321) is the only publicly owner treatment works (POTW) in the watershed currently assigned a permit effluent limit for fecal coliform (400 cfu/100ml daily maximum). However, the 200 cfu/100ml (based on the geometric mean) is the most restrictive applicable standard and was therefore the target used to assign WLAs for all POTWs in the watershed. Each facility's design average flow (DAF) was used for calculating loads during periods of low and moderate instream flow conditions. To provide a more conservative TMDL calculation, each facility's design maximum flows (DMF) were used to calculate the WLA at higher stream flow conditions. A summary of DAF and DMF WLAs for each sewage treatment facility in the watershed, along with the individual segments impacted by the facility, are provided in **Table 8-4**.

Under certain stream flow conditions, the effluent discharge from the treatment facilities may represent the primary source of flow in the receiving stream. Under these low flow conditions, large proportions of the discharge will be lost to evaporation and infiltration into the stream bed, limiting the potential for conveyance of discharged materials into downstream reaches. Because WLA calculations are based on the permitted flow for each facility, under low to mid-level flow conditions the WLA can be overestimated and the resulting calculations will show WLA exceeding the LC for the receiving stream. In this case, the point source discharges represent all the instream flow during dry and low flows and WLAs were set equal to the calculated loading capacity at that flow level and the resulting non-point source load percent reduction needed is calculated at 100%.

Four NPDES permits for MS4 systems exist in the Middle Sangamon River watershed: City of Decatur (ILR400181), Village of Forsyth (ILR400193), IDOT (ILR400493); and the County of Macon (ILR400262). WLAs for NPDES-permitted stormwater discharges such as MS4s that do not have numerical effluent limitations are typically expressed as a percent reduction. In this case, estimates of MS4 contributions to fecal coliform loads were included in WLA calculations at the current load estimate for each impaired segment. Estimates of current loading from MS4s were calculated by subtracting the WLA for NPDES point source dischargers and the margin of safety from the loading capacity of the waterbody to derive the load attributable to all non-point sources including stormwater discharges. The proportion of developed land within the Middle Sangamon

River subbasin and in each impaired segment’s watershed potentially covered under one of the MS4 permit was then calculated using GIS layers for urbanized MS4 areas and multiplied by the segment’s interim LA for non-point sources. Note that a WLA for the IDOT MS4 was not included as the contributing area from this MS4 in the watershed is very small and not likely to contribute loads of fecal coliform. The resulting value for the remaining MS4s represents an estimate of the proportion of overland runoff load attributable to these systems for each impaired segment. As the MS4 loads are from permitted sources, the MS4 load was then subtracted from the overall LA and added to the WLA calculated for POTWs. MS4 discharges are only operable during periods of active runoff and WLA for MS4s were only applied to the “moist” and “high” flow condition categories. The results of the WLA calculations for MS4 areas are shown in **Table 8-5**.

Table 8-4: WLAs for Fecal Coliform from Permitted Discharges in the Middle Sangamon River Watershed

Facility	NPDES Permit Number	Design Average Flow (MGD)	Design Maximum Flow (MGD)	WLA at DAF (mil col/day)	WLA at DMF (mil col/day)	Applicable Stream Segments
SANITARY DISTRICT OF DECATUR	IL0028321	41	125	310,438	946,458	E-05, E-06, E-09, E-16
BLUE MOUND STP	IL0041131	0.18	0.45	1,363	3,407	E-16
MT AUBURN SCHOOL STP	IL0054623	0.0015	0.0038	11	29	E-16
HARRISTOWN STP ¹	ILG580055	0.25	0.625	1,893	4,732	E-05, E-06, E-09, E-16
NIANTIC STP ¹	ILG580149	0.1	0.25	757	1,893	E-16
BUFFALO, DAWSON, MECHANICSBURG ¹	ILG580167	0.2	0.5	1,514	3,786	E-16
STONINGTON STP ¹	ILG580173	0.15	0.375	1,136	2,839	E-16

¹ Facilities with disinfection exemptions

Table 8-5 Fecal Coliform WLA for MS4s in the Middle Sangamon River Watershed

Impaired Segment	MS4 Permit	MS4 Area in Subbasin	Percent of Subbasin Area	WLA by Flow Condition Category and Flow Exceedance Range (mil. col/day)			
				High	Moist		
				0 - 10	10-20	20-30	30-40
E-05	Decatur	12,048	12%	1,784,447	753,530	369,337	168,917
	Forsyth	1,981	2%	293,420	123,905	60,731	27,775
	Macon County	1,786	2%	264,498	111,691	54,745	25,038
	Total	15,815	16%	2,342,366	989,126	484,813	221,730
E-06	Decatur	1,044	100%	13,180,479	5,774,360	3,014,315	1,574,492
	Total	1,044	100%	13,180,479	5,774,360	3,014,315	1,574,492
E-09	Decatur	2,860	30%	4,026,280	1,648,000	761,684	299,323
	Total	2,860	30%	4,026,280	1,648,000	761,684	299,323
E-16	Decatur	1,867	0.6%	103,139	44,049	22,028	10,540
	Total	1,867	0.6%	103,139	44,049	22,028	10,540

8.3.1.5 Reserve Capacity

No Reserve Capacity was included in the TMDL. Large future growth is not anticipated in the area, however, because the WLA is set at the water quality standard, a future TMDL modification would be easily calculated.

8.3.1.6 Load Allocation and TMDL Summary

Summaries of the fecal coliform TMDLs for impaired segments E-05, E-06, E-09, and E-16 of the Sangamon River are provided in **Tables 8-6, 8-7, 8-8 and 8-9**; respectively. The WLAs were calculated using the appropriate design flow for each facility and the geometric mean 200cfu/100ml water quality standard. Under low and mid-level flow conditions, the calculated WLA is greater than the calculated LC, which is a product of the disproportionately high discharge flows associated with using design flows under such low flow conditions. In order to reconcile this and provide more accurate load allocation numbers, the WLA was set equal to the LC for these lower flow categories.

Significant reductions in fecal coliform loading are required to meet the water quality standard under both high and low flow conditions in each segment. The percent reductions presented below are calculated as an overall percent reduction from all potential sources within each segment's contributing watershed.

Table 8-6 Fecal Coliform TMDL for Sangamon River Segment E-05

Zone	Flow Exceedance Range (%)	LC (mil col/day)	LA (mil col/day)	WLA (mil col/day)	MOS (mil col/day)	RC (mil col/day)	Actual Load ¹ (mil col/day)	Percent Reduction Needed (%)
High	0 - 10	15,549,401	12,255,844	3,293,557	implicit	0	463,775,191	97%
Moist	10 - 20	7,115,672	5,175,355	1,940,317	implicit	0	102,643,850	93%
	20 - 30	3,972,667	2,536,663	1,436,004	implicit	0	33,826,232	88%
	30 - 40	2,333,066	1,160,146	1,172,921	implicit	0	5,871,557	60%
Mid-Range	40 - 50	1,301,113	988,782	312,331	implicit	0	4,741,575	73%
Dry	50 - 60	541,554	0	541,554	implicit	0	4,128,575	87%
	60 - 70	305,828	0	305,828	implicit	0	2,688,573	89%
	70 - 80	271,255	0	271,255	implicit	0	1,426,238	81%
	80 - 90	262,350	0	262,350	implicit	0	10,963,182	98%
Low Flow	90 - 100	255,593	0	255,593	implicit	0	698,862	63%

¹ Actual Load was calculated using the 90th percentile of observed concentrations in a given flow range (EPA 2007)

Table 8-7 Fecal Coliform TMDL for Sangamon River Segment E-06

Zone	Flow Exceedance Range (%)	LC (mil col/day)	LA ¹ (mil col/day)	WLA (mil col/day)	MOS (mil col/day)	RC (mil col/day)	Actual Load ² (mil col/day)	Percent Reduction Needed (%)
High	0 - 10	13,180,479	0	13,180,479	Implicit	0	221,375,329	94%
Moist	10 - 20	5,774,360	0	5,774,360	Implicit	0	11,436,204	50%
	20 - 30	3,014,315	0	3,014,315	Implicit	0	2,591,896	0%
	30 - 40	1,574,492	0	1,574,492	Implicit	0	578,669	0%
Mid-Range	40 - 50	668,277	0	668,277	Implicit	0	1,883,143	65%
Dry	50 - 60	143,869	0	143,869	Implicit	0	150,881	5%
	60 - 70	43,036	0	43,036	Implicit	0	3,319,159	99%
	70 - 80	15,566	0	15,566	Implicit	0	5,192	0%
	80 - 90	7,783	0	7,783	Implicit	0	2,389	0%
Low Flow	90 - 100	1,602	0	1,602	Implicit	0	7,631	79%

¹ All non-point source contributions (LA) attributed to MS4 permitted areas and assigned as WLA

² Actual load was calculated using the 90th percentile of observed concentration in a given flow range (EPA 2007)

Table 8-8 Fecal Coliform TMDL for Sangamon River Segment E-09

Zone	Flow Exceedance Range (%)	LC (mil col/day)	LA (mil col/day)	WLA (mil col/day)	MOS (mil col/day)	RC (mil col/day)	Actual Load ¹ (mil col/day)	Percent Reduction Needed (%)
High	0 - 10	14,289,592	9,312,122	4,977,471	implicit	0	99,449,299	86%
Moist	10 - 20	6,410,742	3,811,551	2,599,190	implicit	0	63,892,095	90%
	20 - 30	3,474,524	1,761,650	1,712,875	implicit	0	4,439,003	22%
	30 - 40	1,942,797	692,284	1,250,513	implicit	0	2,042,262	5%
Mid-Range	40 - 50	978,739	666,408	312,331	implicit	0	57,131,454	98%
Dry	50 - 60	269,153	0	269,153	implicit	0	2,505,695	89%
	60 - 70	48,937	0	48,937	implicit	0	587,684	92%
	70 - 80	16,639	0	16,639	implicit	0	43,867	62%
	80 - 90	8,319	0	8,319	implicit	0	33,830	75%
Low Flow	90 - 100	2,006	0	2,006	implicit	0	695,042	100%

¹ Actual load was calculated using the 90th percentile of observed concentrations in a given flow range (EPA 2007)

Table 8-9 Fecal Coliform TMDL for Sangamon River Segment E-16

Zone	Flow Exceedance Range (%)	LC (mil col/day)	LA (mil col/day)	WLA (mil col/day)	MOS (mil col/day)	RC (mil col/day)	Actual Load ¹ (mil col/day)	Percent Reduction Needed (%)
High	0 - 10	19,100,774	18,034,026	1,066,749	implicit	0	369,369,961	95%
Moist	10 - 20	8,709,689	7,702,031	1,007,659	implicit	0	33,936,942	74%
	20 - 30	4,837,235	3,851,598	985,637	implicit	0	30,965,469	84%
	30 - 40	2,817,105	1,842,955	974,150	implicit	0	1,814,806	0%
Mid-Range	40 - 50	1,545,650	1,228,072	317,578	implicit	0	3,353,335	54%
Dry	50 - 60	609,806	0	609,806	implicit	0	3,133,695	81%
	60 - 70	319,372	0	319,372	implicit	0	1,482,587	78%
	70 - 80	276,775	0	276,775	implicit	0	596,668	54%
	80 - 90	265,803	0	265,803	implicit	0	249,429	0%
Low Flow	90 - 100	257,478	0	257,478	implicit	0	751,201	66%

¹ Actual Load was calculated using the 90th percentile of observed concentrations in a given flow range (EPA 2007)

8.3.2 LRS for Sedimentation and Siltation in Streams

Long Point Slough (ERA-01) and Buckhart Creek (EZM-02) are listed for impairment of the aquatic life use caused by excessive sedimentation and siltation. As no numeric water quality standard exists for sedimentation/siltation in Illinois, a numeric target value of 23.1 mg/L of NVSS was provided by Illinois EPA for incorporation into the LRS calculations. A load duration curve was developed for each segment to determine load reductions needed to meet the instream water quality target during varying flow scenarios.

Table 8-10 NVSS Target Loading Capacities in the Streams under Various Flow Conditions in the Middle Sangamon River Watershed

Estimated Mean Daily Flow (cfs)	Target Load Capacity (lbs/day of NVSS)
1	125
5	623
10	1,245
100	12,452
500	62,261
1,000	124,522
5,000	622,611

8.3.2.1 Target Loading Capacity

The LC is the maximum amount of NVSS the impaired water can receive and still meet the LRS target value for sedimentation/siltation impairments in this watershed. The allowable NVSS loads that may be generated in the watershed were determined using estimated flow conditions and the numeric LRS target, as discussed in Section 7. The NVSS loading capacities as a function of flow are presented in **Table 8-10**.

8.3.2.2 Seasonal Variation

Consideration of seasonality is inherent in the load duration analysis. Because the load duration analysis represents the range of expected stream flows, the LRS has been calculated to meet the target during all flow conditions.

There is not one critical flow condition during the year for sedimentation and siltation impairments. The target value is intended to be met under all flow scenarios. By using the load duration curve method, all of these "critical conditions" are accounted for in the loading allocations.

8.3.2.3 Percent Reduction and LRS Summary

Tables 8-11 and 8-12 provide summaries of the percent reductions in NVSS from current conditions needed to meet the LRS target under various flow conditions for Long Point Slough and Buckhart Creek, respectively. Analysis for both impaired streams was limited by the datasets available for calculating NVSS concentrations. Instream NVSS loads in Long Point Slough exceed the target during both flow condition categories for which instream data are available and required load reductions range from 39-46%. NVSS loads exceed the LRS target value during two of the three flow condition categories for which there was available instream data in Buckhart Creek. Load reductions necessary to meet the LRS target value in Buckhart Creek range from 0-49%.

Table 8-11 LRS Targets for NVSS in Long Point Slough (ERA-01)

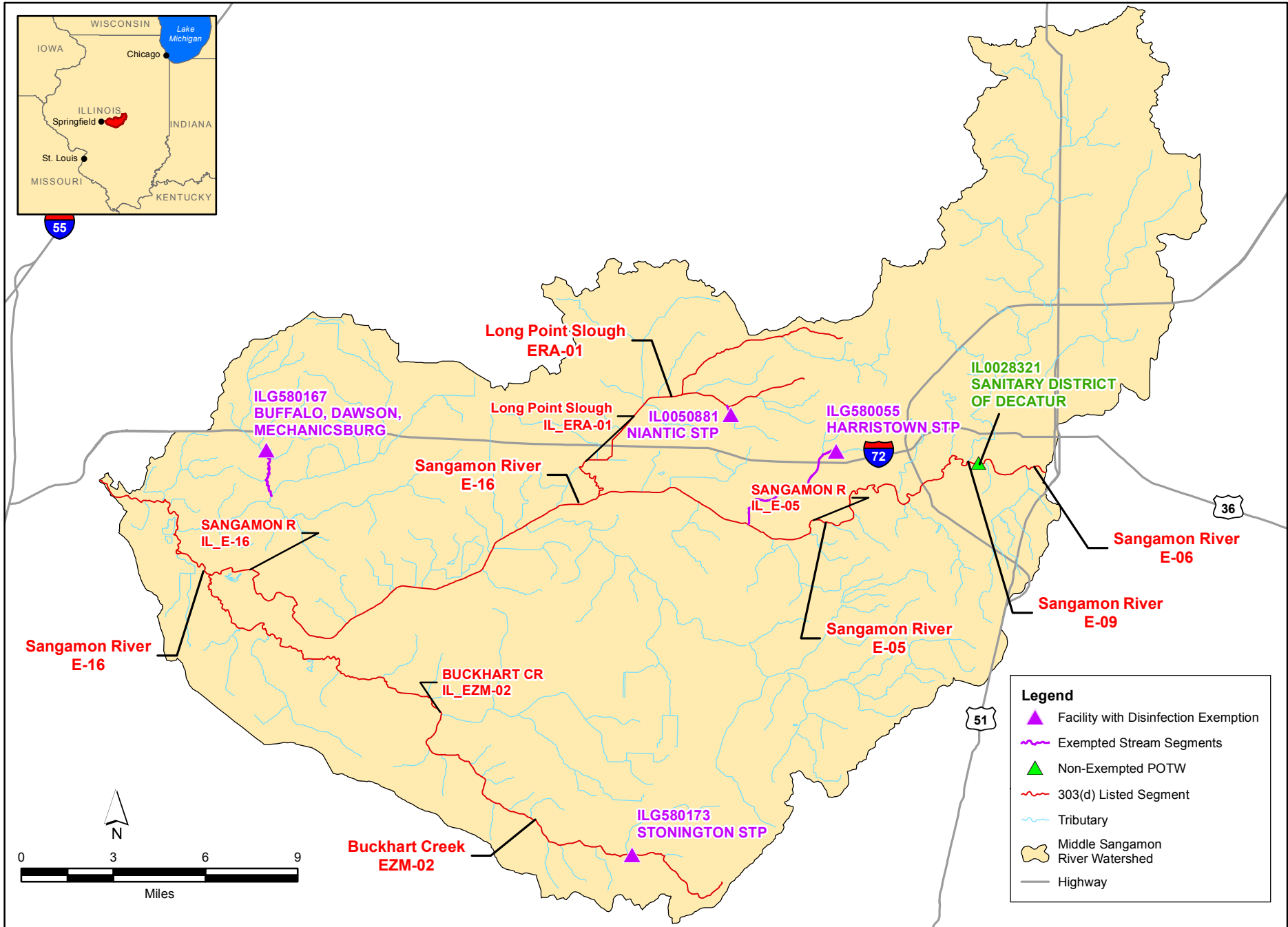
Zone	Flow Exceedance Range (%)	Target Loading Capacity (lbs/day)	Actual Load ¹ (lbs/day)	Percent Reduction Needed (%)
High	0 - 10	27,232	No data	--
Moist	10 - 20	8,698	No data	--
	20 - 30	4,959	No data	--
	30 - 40	3,252	No data	--
Mid-Range	40 - 50	2,195	No data	--
Dry	50 - 60	1,301	No data	--
	60 - 70	553	1,016	46%
	70 - 80	236	387	39%
	80 - 90	89	No data	--
Low Flow	90 - 100	23	No data	--

¹ Actual Load was calculated using the 90th percentile of observed TSS concentrations in a given flow range (EPA 2007)

Table 8-12 LRS Targets for NVSS in Buckhart Creek (EZM-02)

Zone	Flow Exceedance Range (%)	Target Loading Capacity (lbs/day)	Actual Load ¹ (lbs/day)	Percent Reduction Needed (%)
High	0 - 10	44,597	No data	--
Moist	10 - 20	14,070	No data	--
	20 - 30	8,261	1,844	0%
	30 - 40	5,292	No data	--
Mid-Range	40 - 50	3,614	No data	--
Dry	50 - 60	2,194	No data	--
	60 - 70	1,020	2,019	49%
	70 - 80	439	No data	--
	80 - 90	155	202	23%
Low Flow	90 - 100	56	No data	--

¹ Actual Load was calculated using the 90th percentile of observed TSS concentrations in a given flow range (EPA 2007)



**Middle Sangamom River Watershed
Facilities with Disinfection Exemptions**

FIGURE 8-1

This page intentionally left blank.

Section 9

Implementation Plan for the Middle Sangamon River Watershed

9.1 Implementation Overview

The goal of this watershed plan is to identify BMPs to be implemented in the Middle Sangamon River watershed that will provide reasonable assurance that impaired waters in the watershed will meet water quality criteria developed to ensure waterbodies are able to support their designated uses.

The USEPA has identified nine minimum elements that a watershed plan for impaired waters is expected to include. These components are:

1. Identify causes and sources of pollution that will need to be controlled to achieve the pollutant load reduction requirements estimated within the watershed plan.
2. Estimate pollutant load reductions expected as a result of implementing the management measures described in #3 below.
3. Describe the nonpoint source management measures that will need to be implemented to achieve load reduction estimates and identify the critical areas where measures need to be implemented.
4. Estimate the level of technical assistance, associated costs, potential funding sources, and parties that will be relied upon to implement the prescribed measures.
5. Include a public information/education component designed to change social behavior.
6. Develop an implementation schedule for the plan.
7. Develop a description of interim, measureable milestones.
8. Identify indicators that can be used to determine whether pollutant loading reductions are being achieved over time.
9. Develop a monitoring component to evaluate the effectiveness of the implementation efforts over time.

For Element 1, the causes and sources of pollution are described in Section 5 of this report.

9.2 Adaptive Management

An adaptive management or phased approach is recommended for the implementation of management practices designed to meet the TMDLs and LRSs developed for the Middle Sangamon River watershed. Adaptive management conforms to the USEPA guidelines outlined

above because it is a systematic process for continually improving management policies and practices through learning from the outcomes of operational programs. Some of the defining characteristics of adaptive management include:

- Acknowledgement of uncertainty about what policy or practice is "best" for the particular management issue
- Thoughtful selection of the policies or practices to be applied (the assessment and design stages of the cycle)
- Careful implementation of a plan of action designed to reveal the critical knowledge that is currently lacking
- Monitoring of key response indicators
- Analysis of the management outcomes in consideration of the original objectives and incorporation of the results into future decisions (British Columbia Ministry of Forests 2000)

Implementation actions, point source controls, management measures, and/or BMPs are used to control the generation or distribution of pollutants within a watershed. BMPs are either structural, such as wetlands, sediment basins, fencing, or filter strips; or managerial, such as conservation tillage practices, nutrient management plans, or crop rotation. Both structural and managerial BMPs require effective management to be successful in reducing pollutant loading to water resources (Osmond et al. 1995).

It is typically most effective to install a combination of point source controls and BMPs or a BMP system. A BMP system is a combination of two or more individual BMPs that are used to control pollutants from a single critical source. If the watershed has more than one identified pollutant, but the transport mechanism is the same, a BMP system that establishes controls for the transport mechanism can be employed (Osmond et al. 1995).

To assist in development of an adaptive management program, implementation actions, management measures, available assistance programs, and recommended continued monitoring are all discussed throughout the remainder of this section. The point source BMPs described below are generally required and typically already being implemented although some modifications may be appropriate. The nonpoint source BMPs are entirely voluntary based on the landowner's preference.

9.3 BMP Recommendations for Reducing Fecal Coliform in Streams in the Middle Sangamon River Watershed

Results for nearly 80% of the fecal coliform single samples exceeded the 200 cfu per 100 mL geometric mean water quality standard, and approximately 57% of the samples exceeded 400 cfu per 100 mL maximum standard (refer to **Table 5-1**). Loading calculations discussed in Section 7.2.1.2 indicate that exceedances were reported under all flow conditions with most impaired segments having more exceedances under higher flow conditions (E-05, E-06, and E-16) and one segment under lower flow conditions (E-09). Potential sources of fecal coliform include

wastewater treatment plant and/or failed septic system discharges/leaks, MS4 discharges, general nonpoint source runoff and animal-related runoff (as discussed in Section 5 of this report). Animal impacts often consist of livestock, where present, but may also include other animals such as resident and migratory waterfowl and other wildlife such as deer.

9.3.1 NPDES Permitted Point Sources of Fecal Coliform

Table 5-4 of this report listed 14 NPDES permitted point sources present within the Middle Sangamon River watershed. Seven of the 14 permitted facilities have reasonable potential to contribute fecal coliform to receiving waters. **Table 9-1** lists the permitted facilities that have been assigned WLAs (refer to Section 8.1.3.4 for additional discussion). Sewage from plants treating domestic and/or municipal waste without disinfection processes contains fecal coliform. In Illinois, many municipal treatment plants have applied for and received a disinfection exemption allowing the facility to discharge wastewater without disinfection. Disinfection exemptions are granted where the permittee has shown that the receiving water has average depths of two feet or less and no pronounced deep pools during the summer season; contains physical obstacles sufficient to prevent access or primary contact activities; or has adjacent land uses sufficient to discourage primary contact activities. These treatment facilities are required to comply with the geometric mean fecal coliform water quality standard of 200 cfu/100 mL at the closest point downstream where recreational use could occur in the receiving water, or where the water flows into a fecal coliform impaired segment.

Facilities with year-round disinfection exemptions are now required to monitor and report fecal coliform counts from May to October to Illinois EPA. In addition, facilities directly discharging into a segment whose recreational use is impaired by fecal coliform may have their year-round disinfection exemption revoked through future NPDES permitting actions.

Table 9-1 WLAs for NPDES Permitted Municipal Treatment Facility Discharges in the Middle Sangamon Watersheds

Facility	NPDES Permit Number	Design Average Flow (MGD)	Design Maximum Flow (MGD)	WLA at DAF (mil col/day)	WLA at DMF (mil col/day)	Applicable Stream Segments
SANITARY DISTRICT OF DECATUR	IL0028321	41	125	310,438	946,458	E-05, E-06, E-09, E-16
BLUE MOUND STP	IL0041131	0.18	0.45	1,363	3,407	E-16
MT AUBURN SCHOOL STP	IL0054623	0.0015	0.0038	11	29	E-16
HARRISTOWN STP ¹	ILG580055	0.25	0.625	1,893	4,732	E-05, E-06, E-09, E-16
NIANTIC STP ¹	ILG580149	0.1	0.25	757	1,893	E-16
BUFFALO, DAWSON, MECHANICSBURG ¹	ILG580167	0.2	0.5	1,514	3,786	E-16
STONINGTON STP ¹	ILG580173	0.15	0.375	1,136	2,839	E-16

¹ Facilities with disinfection exemptions

Additionally, as noted in Section 2.3, a portion of the watershed is urban in nature and some of the municipalities within the watershed have MS4s, including the City of Decatur (ILR400181) and the Village of Forsyth (ILR400193). Macon County (ILR400262) and IDOT (ILR400493) are

also covered by MS4 permits. Unfortunately, information on the amount of fecal coliform that may be contributed to stream segments via urban stormwater sources is not currently available. WLAs were assigned based on contributing land area (refer to **Table 8-5**). A storm sewer survey may be warranted to determine urban stormwater runoff impacts to fecal coliform counts in area receiving waters.

9.3.2 Nonpoint Sources of Fecal Coliform

Several BMPs have been identified to help reduce fecal coliform counts in the impaired segments of the Middle Sangamon River watershed. These management options focus on the most likely nonpoint sources of fecal coliform within the basin, such as agricultural runoff, septic systems, and livestock.

Filter Strips: Filter strips can be used as a control to reduce both pollutant loads from runoff and sedimentation to impaired stream segments. Filter strips implemented along stream segments slow and filter runoff and provide bank stabilization, decreasing erosion and re-deposition. Grass filter strips have been shown to remove as much as 65 percent of sediment and 75 percent of total phosphorus from runoff, so it is assumed that the removal of other contaminants such as fecal coliform from runoff may fall within this range (USEPA 2003). Riparian vegetation also provides bank stability that further reduces sediment loading to the stream. The installation of filter strips adjacent to the impaired stream segments, as well as any contributing tributaries, can result in considerable reduction of overland contributions of sediments and suspended solids to an impaired waterbody.

The Illinois NRCS Conservation Practice Standard 393 (June 2003) describes filter strip requirements based on land slope; the requirements are designed to achieve a minimum flow through time of 15 to 30 minutes at a one-half inch depth. **Table 9-2** provides a summary of the guidance for filter strip width, or flow length, as a function of slope (NRCS 2003).

Table 9-2 Filter Strip Flow Lengths Based on Land Slope

Percent Slope	0.5%	1.0%	2.0%	3.0%	4.0%	5.0% or greater
Minimum (feet)	36	54	72	90	108	117
Maximum (feet)	72	108	144	180	216	234

GIS land use and topographic data, described in Section 2 of this report, were used in conjunction with soil slope data to provide an estimate of acreage where filter strips could be installed. As discussed in Section 2.4.1, a total of 133 soil types exist in the watershed. The two most common types—Ipava silt loam (0 to 2 percent slopes), and Sable silty clay loam (0 to 2 percent slopes)—each cover a small percentage of the overall watershed (17.7 and 17.2 percent, respectively). All other soil types each represent less than 8 percent of the total watershed area. Although the two primary soil types and corresponding slope values suggest that the maximum values associated with 2 percent or less slopes could be used for this analysis, there does still remain some considerable variability in soil type and corresponding slope values across the watershed.

In conjunction with the available land use, topography, and soil information discussed in Section 2, mapping software was used to buffer impaired stream segments, and their major tributaries, to

determine the total area found within the appropriate footages of the stream segments. Due to the wide range of soil types and slopes found in the watershed, the appropriate buffer widths were estimated in GIS based on the average slope of land within the maximum buffer areas of each impaired segment's major tributaries. These average slopes were then used to calculate approximate buffer distances based on the NRCS guidance using a best-fit equation to interpolate between the slope percentages to buffer width relationships provided in the NRCS guidance.

Not all land use types within the buffer areas are candidates for conversion to buffer strips. Existing forests and undisturbed grasslands already function as filter strips and conversion of developed residential or commercial lands is often infeasible. In general, agricultural lands are the land use type most conducive to conversion to buffer strips and will likely provide the greatest benefit to water quality once converted. Therefore, GIS software was used to extract the approximate acreage of agricultural lands within the appropriate buffer area for each impaired stream segment and its tributaries. The calculated overall buffer areas and acreage of agricultural land within the buffer distances for each impaired stream segment and its tributaries are provided in **Table 9-3**. These data represent an approximation of the maximum acreage of land potentially available for conversion to filter strips. More detailed assessment of a given property is necessary to determine the exact size and extent of convertible lands likely to provide the greatest benefit to in-stream water quality following conversion to filter strips.

There are approximately 30,180 total acres within the various buffer distances for the four segments impaired by fecal coliform and their tributaries in the Middle Sangamon River watershed (not including tributaries in the Upper Sangamon River Watershed addressed by alternate TMDLs). Of this total area, approximately 20,776 acres are classified as agricultural land where filter strips could potentially be installed. Landowners should be encouraged to evaluate their land adjacent to impaired streams and their tributaries to determine the practicality of installing or extending filter strips to achieve effective flow lengths as described in the NRCS guidance provided in **Table 9-2**. Figures depicting the buffered areas and agricultural lands suitable for conversion to filter strips in each segment are provided as **Figures 9-1** through **9-4**.

Table 9-3 Average Slopes, Filter Strip Flow Length, Total Buffer Area, and Area of Agricultural Land Buffers Potentially Suitable for Conversion for Filter Strips for Mitigation of Fecal Coliform, by Impaired Stream Segment

Stream Name	Segment ID	Average Slope Adjacent to Streams (%)	Filter Strip Flow Length (feet)	Total Area in Buffer (Acres)	Agricultural Land Buffer (Acres)
Sangamon River	E-05	9.6	234*	8,137	4,426
	E-06	4.6	226	44	0
	E-09	11.5	234*	1,003	295
	E-16	7.4	234*	30,180	20,776

*Maximum recommended minimum filter strip flow length (slope >5.0%)

Private Septic System Inspection and Maintenance Program: As indicated in Section 2.3, approximately 12 percent of the Middle Sangamon River watershed consists of developed or urbanized land, primarily in the Decatur metropolitan area. A majority of businesses, residences, and other structures in the developed areas are served by a municipal sewer district and septic

systems are uncommon in these areas. The remainder of the watershed is rural and primarily devoted to agricultural purposes. Many households in rural areas of Illinois that are not connected to municipal sewers make use of onsite sewage disposal systems, or septic systems. The degree of nutrient removal in these systems is limited by soils and system upkeep and maintenance.

Failing or leaking septic systems can be a significant source of fecal coliform pollution. A program that actively manages functioning systems and addresses non-functioning systems could be implemented to reduce the potential bacteria loads from septic systems in the watershed. The USEPA has developed guidance for managing septic systems, which includes assessing the functionality of systems, public health, and environmental risks (USEPA 2005). It also introduces procedures for selecting and implementing a management plan.

To reduce the discharge of excessive amounts of contaminants from a faulty septic system, a scheduled maintenance plan that includes regular pumping and maintenance of the septic system should be followed. The majority of failures originate from excessive suspended solids, nutrients, and biochemical oxygen demand (BOD) loading to the septic system. Reduction of solids entering the tank can be achieved via limiting the use of garbage disposals.

Septic system management practices can extend the life and maintain the efficiency of a septic system. Water conservation practices, such as limiting daily water use or using low flow toilets and faucets, are the most effective methods to maintain a properly functioning septic system. Additionally, septic systems should not be used for the disposal of solids, such as cigarette butts, cat litter, cotton swabs, coffee grounds, disposable diapers, etc. Physical damage to the drain field can be prevented by:

- Maintaining a vegetative cover over the drain field to prevent erosion
- Avoiding construction over the system
- Protecting the area down slope of the system from excavation
- Landscaping the area to divert surface flow away from the drain field (Johnson 1998)

The cost of each management measure is highly variable, and site-specific data on septic systems and management practices do not exist for the watershed; therefore, homeowners with septic systems should contact their county health department for septic system management costs.

Current protocols for addressing failing septic systems in the rural areas are to be performed in accordance with the Illinois Private Sewage Disposal Licensing Act and Code "to prevent the transmission of disease organisms, environmental contamination and nuisances resulting from improper handling, storage, transportation and disposal from private sewage disposal systems." Any new, replaced, or renovated system must be installed by a licensed contractor or the homeowner and permitted through the county health department. The department must receive both an application for permit and the appropriate fee from the contractor/homeowner. Once reviewed and approved, a permit is issued and an inspection of the system is conducted during and after construction. The county health department also investigates private sewage disposal system complaints.

A long-range solution to failing septic systems is connection to a municipal sanitary sewer system. Connection to a sanitary sewer line would reduce existing fecal coliform sources by replacing failing septic systems with municipal treatment and will allow communities to develop without further contribution of pathogens to the Sangamon River. Costs for the installation are generally paid over a period of several years (average of 20 years) and help to avoid forcing homeowners to shoulder the entire initial cost of installing a new septic system. In addition, costs are sometimes shared between the community and the utility responsible for treating the wastewater generated from replacing the septic tanks. The planning process is involved and requires participation from townships, cities, counties, businesses, and citizens.

It is unknown at this time how many septic systems are present within the watershed. However, as discussed in Section 2.5, approximately 70,800 people reside in the Middle Sangamon River watershed, and the largest urban development is the city of Decatur with an estimated population of approximately 47,100 for the portion of Decatur that lies within the watershed boundary. Homes and businesses within city limits are expected to be on a municipal sewer system. Additional townships within the watershed include Blue Mound, Dawson, Buffalo, Forsyth, Harristown, Illiopolis, Mechanicsburg, Mount Auburn, Niantic, and Stonington (as shown in **Figure 1-1**). The communities have permitted sewage treatment plants and residents/businesses are therefore assumed to be on a municipal sewer system. Based on the areas shown in **Figure 1-1**, the combined areas of Blue Mound, Dawson, Forsyth, Harristown, Niantic, and Stonington might comprise approximately one third to one-half of the portion of Decatur that lies within the watershed boundary and may therefore account for approximately 19,000 people. Information on the townships of Buffalo, Illiopolis, Mechanicsburg, and Mount Auburn is not available. For the purposes of this evaluation, homes and businesses in these four communities are presumed to use private septic systems.

Based on these assumptions, up to 4,700 people remain and which may be served by private septic systems. If a typical household is assumed to consist of four people, there may be around 1,200 households which have septic systems.

Restrict Livestock Access to the Middle Sangamon River: As discussed in Section 5.3 of this report, significant quantities of livestock are present within the Middle Sangamon River watershed. Data from NASS indicates there were approximately 22,000 head of cattle within Christian, Macon, and Sangamon Counties in 2013, but these animals are primarily pastured and no high concentration feed operations exist in the watershed.

It is unknown to what extent livestock have access to the Middle Sangamon River or its tributaries. Reduction of livestock access to streams, however, is recommended to reduce bacteria loads and limit damage to streambanks. Access of livestock and other animals to streams can increase bank erosion, trample filter strips and riparian buffers causing short circuiting of pollutant treatment, and provide direct input of manure to the waterbody. Exclusion or restricting pet, livestock, and wildlife access to streams with fencing helps reduce pollutant loads. The USEPA found that livestock exclusion from waterways and other grazing management measures were successful in reducing fecal coliform counts by 29 to 46 percent (2003).

Fencing and alternate watering systems are effective ways to restrict livestock from streams; however, fencing emplacement is not always feasible from either a cost or animal management

viewpoint. If used, fencing should be placed outside of the filter strip/riparian area to prevent manure from being entrained during flooding. Another option is to limit access of people to areas of the waterbody; this indirectly keeps a large percentage of pet waste at a distance from the waterbody. Waterfowl are an issue for phosphorus and fecal coliform loading at lakes and slow moving streams. Acoustic devices and other repellants can be used to stress nuisance waterfowl so they avoid congregating in select areas.

9.4 BMP Recommendations for Sedimentation/Siltation in the Middle Sangamon River Watershed

Long Point Slough (ERA-01) and Buckhart Creek segment EZM-02 are both listed for impairment of the aquatic life use by sedimentation and siltation. Streams have historically been listed for impairment caused by sedimentation/siltation when over 34 percent siltation was observed (prior to 2006), or over 75 percent siltation was observed (2008 to 2010). Illinois EPA now addresses sedimentation and siltation impairments through assessment of NVSS concentrations. Illinois EPA provided a watershed-specific LRS target value for NVSS concentrations in streams of the Middle Sangamon River watershed of 23.1 mg/L of NVSS. NVSS data were limited for both segments but load reductions were calculated for flow scenarios where possible (**Tables 8-11** and **8-12**).

The local SWCD submitted public comments during the TMDL process indicating that sedimentation/siltation was also an issue along the Middle Sangamon River, particularly between segments E-06 and E-05 (including E-09). They have witnessed severe streambank in recent years. The erosion is likely due from heavy releases from Lake Decatur Dam upstream after heavy rainfall. The high volume releases are loading large amounts of sediment in the water and trees that normally hold the soil in the river bank have been undercut and have fallen in the river, leaving the bank even more exposed to erode.

Sedimentation/siltation within the Long Point Slough and Buckhart Creek impaired segments is most likely from nonpoint sources. As indicated in **Figure 2-2**, the areas surrounding the Long Point Slough and Buckhart Creek impaired segments primarily consist of croplands. However, municipalities covered by MS4s (city of Decatur and village of Forsyth, as noted in Section 9.3.1) should be encouraged to review their stormwater BMPs to ensure that effective BMPs are being used within their systems. Additional nonpoint source BMPs are provided below.

Filter Strips: As mentioned in Section 9.3.2, filter strips can be used as a control to reduce sedimentation to impaired stream segments. Grass filter strips have been shown to remove as much as 65 percent of sediment. Riparian vegetation also provides bank stability that further reduces sediment loading to the stream. Filter strip buffer areas are calculated as described in Section 9.3.2. There are approximately 3,286 total acres within the calculated minimum buffer distance of 227 feet of Long Point Slough and its tributaries, an estimated 2,918 acres of which are classified as agricultural land **Table 9-4**. A total of 5,051 acres of land exists in the calculated 234-foot minimum buffer width for Buckhart Creek and its tributaries, 4,107 of which are classified as agricultural lands. Landowners should be encouraged to evaluate their land adjacent to impaired streams and their tributaries to determine the practicality of installing or extending filter strips to achieve effective flow lengths as described in the NRCS guidance provided in **Table**

9-2. Figures depicting the buffered areas and agricultural lands suitable for conversion to filter strips in each segment are provided as **Figures 9-5** and **9-6**.

Table 9-4 Average Slopes, Filter Strip Flow Length, Total Buffer Area, and Area of Agricultural Land Buffers Potentially Suitable for Conversion for Filter Strips to Mitigate Sedimentation/Siltation Impairments, by Impaired Stream Segment

Stream Name	Segment ID	Average Slope Adjacent to Streams (%)	Filter Strip Flow Length (feet)	Total Area in Buffer (Acres)	Agricultural Land Buffer (Acres)
Long Point Slough	ERA-01	4.6	227	3,286	2,918
Buckhart Creek	EZM-02	6.0	234*	5,051	4,107

*Maximum recommended minimum filter strip flow length (slope >5.0%)

Riparian Buffers: Riparian corridors, including both the stream channel and adjacent land areas, are important components of watershed ecology. Riparian vegetation, specifically the shade-producing variety, plays a significant role in controlling stream temperature change. The shade provided will reduce both solar radiation loading to the stream and peak temperatures during the growing season which can in turn increase the water body DO saturation level. Furthermore, preserving natural vegetation along stream corridors can effectively reduce water quality degradation associated with development. The root structure of the vegetation in a buffer enhances infiltration of runoff and subsequent trapping of nonpoint source pollutants, such as phosphorus. The buffers are only effective in this manner, however, when the runoff enters the buffer as a slow moving, shallow sheet. Concentrated flow in a ditch or gully will quickly pass through the buffer offering minimal opportunity for retention and uptake of pollutants.

Even more important than the filtering capacity of the buffers is the protection they provide to streambanks. The rooting systems of the vegetation serve as reinforcements in streambank soils, which help to hold streambank materials in place and minimize erosion. Due to the increase in stormwater runoff volume and peak rates of runoff associated with agriculture and other land development, stream channels are subject to greater erosional forces during stormflow events. Thus, preserving natural vegetation along stream channels minimizes the potential for water quality and habitat degradation due to streambank erosion, as well as that additional sediment load entering the stream.

Converting land adjacent to streams for the creation of riparian buffers will provide stream bank stabilization, stream shading, and nutrient uptake and trapping from adjacent areas. Minimum buffer widths of 25 feet are required for water quality benefits. Higher removal rates are provided with greater buffer widths. The USEPA (2003) reports phosphorus removal rates of approximately 25 to 30 percent for 30-foot-wide buffers and 70 to 80 percent for 60 to 90-foot-wide buffers. Riparian corridors can typically treat a maximum of 300 feet of adjacent land before runoff forms small channels that short circuit treatment. In addition to the treated area, the land converted from agricultural land to buffer strip will generate up to a 90 percent lower nutrient load based on data presented in Haith et al. (1992).

Land use data for Long Point Slough (ERA-01) and Buckhart Creek (EZM-02) were clipped to 25 foot buffer zones created around the impaired stream segments. Grassland, forest, and agricultural areas within the 25-foot buffer zones are shown in **Table 9-5** by segment. There are

363 within 25 feet of ERA-01 and its tributaries; approximately 63 of these acres are existing grassland or forest while 276 acres are currently classified as agricultural. Approximately 545 acres of land exists within 25 feet of EZM-02 and its tributaries; approximately 199 of these acres are existing grassland or forest while 305 acres are currently classified as agricultural and may be candidates for riparian buffer improvements. Landowners should be encouraged to assess parcels adjacent to the stream channels and maintain or improve existing riparian areas or potentially convert cultivated lands.

Table 9-5 Total Area and Area of Grassland, Forest, and Agricultural Land Within 25-Foot Buffer, by Stream Segment, Long Point Slough and Buckhart Creek

Stream Name	Segment ID	Total Area in 25 ft Buffer (Acres)	Grassland in 25 ft Buffer (Acres)	Forest in 25 ft Buffer (Acres)	Agricultural Land In 25 ft Buffer (Acres)
Long Point Slough	ERA-01	363	37	27	276
Buckhart Creek	EZM-02	545	117	83	305

Conservation Tillage Practices: Conservation tillage practices could help reduce sediment loads into the impaired stream segments by reducing erosion of soils. **Table 9-6** shows the areas (acres) in each impaired segment that are under cultivation, along with the percent of the corresponding watershed area which is cultivated. In conservation tillage, at least 30 percent of the soil surface retains cover by residue after planting. Crop residuals or living vegetation cover on the soil surface protects against soil detachment from water and wind erosion.

Table 9-6 Cultivated Areas for the ERA-01 and EZM-02 Impaired Stream Segments

Waterbody Name	Segment ID	Land Cover Area (Acres)	Cultivated Area (Acres)	Percent Cultivated
Long Point Slough	ERA-01	39,425	35,323	89.6%
Buckhart Creek	EZM-01	63,892	55,403	86.7%

Conservation tillage practices are grouped into three types: no-till, ridge-till, and mulch-till. No one method is best for all fields; instead, the decision on the type of conservation tilling to be used should be based on factors such as the severity of the erosion problem, the soil type, crop rotation, and available equipment. No-till leaves the soil undisturbed from harvest to planting thus leaving a high percentage of surface covered by crop residues. No-till planting can be done successfully in chemically-killed sod, in crop residues from the previous year, or when double-cropping after a small grain. The planting is done in a narrow (usually 6 inches or less) seedbed or slot created by coulters, row cleaners, disk openers, in-row chisels, or roto-tillers. A press-wheel follows to provide firm soil-seed contact. Herbicides are the primary method of weed control, although cultivation may be used for emergency weed control.

Ridge-till involves planting into a seedbed prepared on ridges with sweeps, disk openers, coulters, or row cleaners. The ridges are rebuilt during cultivation and, except for nutrient injection, the soil is left undisturbed from harvest to planting. Ridge-till systems therefore leave residue on the surface between ridges so the degree of soil conservation depends on the amount

of residue and the row direction. Planting on the contour and increased surface coverage greatly reduce soil loss. Ridge-till works best on nearly level, poorly drained soils. The ridges speed up drainage and soil warm-up. Cultivation controls weeds along with some herbicides.

Mulch-till uses chisel plows, field cultivators, disks, sweeps, or blades to till the soil before planting. The tillage does not invert the soil but leaves it rough and cloddy. Various chisel points or sweeps attached to the shanks affect the amount of residue cover left on the soil surface. The effectiveness of mulch-till systems in reducing erosion depends on surface roughness, amount of residue, and tillage direction. Fall chiseling should be done to a depth of 8-10 inches, and spring chiseling should be no deeper than 6 inches. Disking or other shallow tillage operations can be used in seed bed preparation. A standard, or tandem, disk does not till as deep and leaves more residue on the surface compared to heavy (offset) disks. Herbicides and/or cultivation controls weeds in a mulch-till system.

Conservation tillage practices can remove up to 45 percent of the dissolved and total phosphorus from runoff and approximately 75 percent of the sediment. Additionally, studies have found around 93 percent less erosion occurred from no-till acreage compared to acreage subject to moldboard plowing (USEPA 2003). Tillage practices in the Long Point Slough and Buckhart Creek impaired segment areas should be assessed and possibly improved upon to reduce sediment loads.

Terracing: Terracing is a soil conservation practice that can prevent runoff of precipitation falling on high gradient lands from causing serious erosion. Terraces may consist of an earthen embankment, a channel, or a combination of ridges and channels constructed across the slope. Terraces reduce both the volume and velocity of water moving across the soil surface, which greatly reduces soil erosion. Terracing reduces peak discharge rates by temporarily storing runoff and allowing the associated sediment and other contaminants to settle out behind the terrace ridge rather than directly entering a receiving stream. Terrace systems have been shown to remove as much as 85 percent of sediment and 70 percent of total phosphorus from runoff (USEPA 2003).

Water and Sediment Control Basins (WASCOBs): These basins are designed to trap sediments (and the pollutants bound to the sediment) prior to reaching a receiving water. Sediment control basins are typically earthen embankments installed along drainages that act similarly to a terrace. The basin traps water and sediment running off cropland upgradient from the structure, and reduces gully erosion by controlling flow within the drainage area. The basin then releases water slowly, which also helps to decrease streambank erosion in the receiving water.

Sediment control basins are usually designed to capture drainage from an area of 30 acres or less and should be large enough to control runoff from at least a 10-year, 24-hour storm. Locations are determined based on slopes, tillage, and crop management, and the local NRCS can often provide information and advice for design and installation. Maintenance includes reseeding or planting the basins in order to maintain vegetation and periodically checking them, especially after large storms, to determine the need for embankment repairs or mechanical removal of excess sediment.

Grassed Waterways: Grassed waterways are natural or constructed broad, shallow, and heavily vegetated channels designed to move surface water across farmland without causing soil erosion. The vegetative cover within the waterway reduces peak discharge and protects the channel surface from rill and gully erosion. Waterways are often constructed in natural depressions where the water collects and flows to an outlet. In addition to reducing erosion, grassed waterways can positively affect water quality through uptake of other pollutants attached to soils such as nutrients. The NRCS recommends these maintenance measures for grassed waterways:

- If possible, bring row crop patterns into the waterway nearly on the contour, or use it as the turn area. Don't plant end rows along the side of the waterway.
- Plant good quality NRCS-approved seed and fertilize periodically.
- Inspect the area frequently for eroding areas and places needing reseeding. Repair minor rills or gullies by reshaping and reseeding.
- Maintain the width of the grass area when tilling and planting adjacent fields.
- Avoid spraying herbicides in the waterway.
- Avoid driving up and down grassed waterways, especially during wet conditions. The ruts caused by tire tracks can lead to gullies.
- Maintain outlets to prevent gullies from forming. This may include reshaping and reseeding the outlet, or repairing components of structural outlets.

Streambank Stabilization/Erosion Control: Soil erosion is the process of moving soil particles or sediment by flowing water or wind. Additionally, eroding soil transports pollutants that can potentially degrade water quality. Four available approaches to potentially decrease nonpoint TSS, sedimentation/siltation, and/or pollutant source loads, as well as helping to stabilize eroding banks include the following:

- **Stone Toe Protection:** Non-erodible materials are used to protect the eroding banks of a stream. Meandering bends found in the watershed could potentially be stabilized by placing the hard armor only on the toe of the bank. Stone toe protection is most commonly implemented "using stone quarry stone that is sized to resist movement and is placed on the lower one third of the bank in a windrow fashion" (STREAMS 2005).
- **Rock Riffle Grade Control:** Naturally stable stream systems typically have an alternating riffle-pool sequence that helps to dissipate stream energy. Riffle rock grade control places loose rock grade control structures at locations where natural riffles would occur to create and enhance the riffle-pool flow sequence of stable streams. By installing riffle rock in an incised channel, the riffles will raise the water surface elevation resulting in lower effective bank heights, which increases the bank stability by reducing the tractive force on the banks (STREAMS 2005).
- **Floodplain Excavation:** Rather than raising the water level, Floodplain Excavation lowers the floodplain to create a more stable stream. Floodplain Excavation uses mechanical

means to restore the floodplain by excavating and utilizing the soil that would eventually be eroded away and deposited in the stream (STREAMS 2005).

- **Rock chutes:** Rock chutes are riprap lined water conveyance structures used to move water down a slope in a non-erosive manner. The main purpose of a rock chute is to reduce channel flow velocity by dissipating energy and to provide a stable grade at the outlet to prevent erosion.

The extent of streambank erosion within and upstream of the Long Point Slough and Buckhart Creek impaired segments is unknown but local stakeholders have indicated that streambank erosion is also occurring along the Middle Sangamon River. Further investigation is recommended to determine the extent that targeted erosion control measures could help manage sedimentation/siltation in the reaches.

9.5 BMP Recommendations for Improving DO in Buckhart Creek

The Buckhart Creek (Segment EZM-02) area of the Middle Sangamon River watershed was listed during Stage 1 for impairment of aquatic life use due to a single low DO concentration that occurred in 2003. As discussed in Section 5 of this report, this exceedance occurred at one of the two water quality stations located in this segment; however, additional Stage 2 sampling conducted by the Illinois EPA in 2015 did not confirm the DO impairment or show a current impairment. The DO impairment in Burkhart Creek is therefore recommended for delisting and no TMDLs or BMPs for improving DO were included.

9.6 Cost Estimates of BMPs

Cost/payment rate estimates for a number of suggested BMPs are provided in the following subsections. This information was obtained from the 2016 Illinois EQIP “Payment Scenario Descriptions” document located at:

(<http://www.nrcs.usda.gov/wps/portal/nrcs/main/il/programs/financial/eqip/>).

9.6.1 Filter Strips and Riparian Buffers

Several types of filter strip practices are available, including areas for native herbaceous vegetation with or without fertility measures required and areas of introduced species, also with or without fertility measures required. Filter strip implementation that includes seedbed preparation and native seed application ranges from \$520/acre to \$639/acre depending on the type used, with an average of approximately \$594/acre.

Riparian buffers consisting of bare-root shrubs cost approximately \$1.10 to \$1.65 each while direct seeding of trees and/or shrubs costs approximately \$741/acre. The direct seeding scenario includes a planting rate of approximately 3,000 to 4,800 seeds per acre as well as the foregone income for the land taken out of crop production. Land preparation, including removing undesirable vegetation and improving site conditions, is estimated at \$38/acre. For cases where an herbaceous cover is preferable, such a native grass or certain species of forbs and/or shrubs, costs average \$642/acre.

9.6.2 Livestock and Wildlife Exclusion

Costs for livestock and/or wildlife exclusion depend on the type of fencing used. For example, permanent high tensile electric fencing is approximately \$0.79/foot for a single strand, \$1.16/foot for 2 to 3 strands, \$1.42/foot for 4 to 6 strands (with fence post centers no more than 30 feet apart), and \$1.78/foot for 7 or more strands (with double H bracing and fence post centers no more than 30 feet apart). A permanent, multi-strand barbed wire fence averages \$1.62/foot, and a permanent woven wire fence averages \$1.96/foot.

The cost for providing an alternate water supply will vary depending on the supply system used. For example, in areas frequently used by livestock for limited access to drinking water from a pond or stream, an access ramp may be constructed to provide a stable, non-eroding surface and is approximately \$1.44/square foot. This includes earthwork, geotextile, gravel, and other surfacing materials that might be part of the design, as well as a small diversion berm to protect the ramp from concentrated overland flow. If vegetation should be established near the access ramp, costs for a dozer for grading and shaping of small gullies, seedbed preparation with typical tillage implements, grass/legume seed, companion crop, and fertilizer and lime with application are \$716.03/acre. Straw mulch or other approved natural material may be applied where needed to facilitate establishment of vegetative cover. The cost for mulching averages \$238/acre.

Several tank types may be used in areas where lower capacity water supplies are needed and only a backup supply is required for peak demand periods. Above ground tanks vary from \$2,220 for a 1,000 to 3,000 gallon tank and \$3,717 for a tank greater than 3,000 gallons. A large, permanent water tank (500 to 1,000 gallons) or fountain averages \$975, a small permanent tank (less than 500 gallons) is approximately \$400, a frost-free waterer is approximately \$1,011, and a portable tank is \$153. Heavy use protection should be established around these tanks and costs range from \$0.86 to \$4.91/square foot for gravel beds up to a 12 foot width. An underground storage tank may also be used, \$3,600 each, with a livestock pipeline for overflow. A plastic, buried pipeline, less than 2 inches diameter, averages \$1.94/foot. If a bedded pipeline is needed due to special considerations, such as rocky soil, the cost is \$3.38/foot. A non-electric livestock pump is approximately \$961.

9.6.3 Water and Sediment Control Basins

The average cost for a water and sediment basin is approximately \$2.70/cubic yard depending on height (greater than or less than 5 ft) and if topsoil stockpiling is necessary. Installation of an underground outlet, plastic conduit, averages \$2.27/foot.

If vegetation should be established, costs for a dozer for grading and shaping of small gullies, seedbed preparation with typical tillage implements, grass/legume seed, companion crop, and fertilizer and lime with application are \$716.03/acre. Straw mulch or other approved natural material may be applied where needed to facilitate establishment of vegetative cover. The cost for mulching is \$238/acre.

9.6.4 Terraces

Costs for terraces range from \$1.66 to \$5.39/foot depending on the width (broadbase or narrowbase), slope width (less than or greater than 9 percent), whether topsoil stockpiling is needed, and timing of construction (if crop season).

9.6.5 Bank Stabilization/Erosion Controls

Streambank and shoreline protection features include weirs/rock riffles, stream barbs, and bank armor. Weirs/rock riffles range from \$2,448 to \$6,305 each depending on the size. A stream barb or bendway weir along with a longitudinal peaked stone toe ranges from \$27.27 to \$52.50/foot. Full bank armor (rip rap) may be use where typical techniques such as stone toe protection or stream barbs are not feasible. The armor is \$37.55/cubic yard.

Several types of grade stabilization structures may be used depending on the site-specific conditions and include the following: concrete block chutes, \$7.81/square foot, and riprap-lined (rock) chutes, \$48.73/cubic yard. A pipe structure, \$5.20/cubic yard, may be used to stabilize a classic gully with very erodible soils in a wooded area where vegetative establishment is not possible on most of the backslope. A straight overfall grade stabilization structure may be used to control erosion. The overfall structure may be implemented as a toewall, or any other type of straight overfall including concrete, sheet pile, or gabions. Where the height from the inlet to outlet is less than 5 feet, the cost is \$119.11/square foot, and where the height is equal to or greater than 5 feet, the cost is \$194.01/square foot. A pipe drop grade stabilization structure, \$10.24/square foot, includes earthwork and a principal spillway outlet structure.

9.6.6 Grassed Waterways

Costs for grassed waterways range from \$2,568 to \$4,916/acre depending on the width, timing of construction (if crop season), and whether checks (fabric or rock) are used.

9.6.7 Conservation Tillage

Conservation tillage is assumed to include tillage practices that preserve at least 30 percent residual cover of the soil after crops are planted. Costs associated with converting to conservation tillage will depend on the extent and degree of conservation tillage practices implemented. A no-till/strip-till system, organic or non-organic, involves managing the amount, orientation, and distribution of crop and other plant residue on the soil surface year-round while limiting soil-disturbing activities used to grow and harvest crops. These systems average approximately \$16/acre. Incorporating mulch till in place of conventional till costs \$4.21/acre, and applies to both organic and conventional fields. A full-width ridge-till system costs approximately \$30/acre. Contour farming is a practice in which row orientation is changed from up and down hill orientation to nearly perpendicular to the flow of runoff. Costs for this practice are \$6.06/acre.

9.6.8 Septic System Maintenance

Septic tanks are designed to accumulate sludge in the bottom portion of the tank while allowing water to pass into the drain field. If the tank is not pumped out regularly, the sludge can accumulate and eventually become deep enough to allow for flow into the drain field. Pumping the tank every three to five years prolongs the life of the system by protecting the drain field from solid material that may cause clogs and system back-ups. In addition, septic systems should not be connected to field tile lines.

The cost to pump a typical septic tank ranges from \$250 to \$350 depending on how many gallons are pumped out and the disposal fee for the area. If a system is pumped once every three to five years, this expense averages out to less than \$100 per year.

The cost of developing and maintaining a watershed-wide database of the onsite wastewater treatment systems in the Middle Sangamon River watershed depends on the number of systems that need to be inspected and the means by which the systems are inventoried. Education of home and business owners that use onsite wastewater treatment systems should occur periodically. Public meetings; mass mailings; and radio, newspaper, and TV announcements can all be used to remind and inform owners of their responsibility to maintain their systems. The costs associated with education and inspection programs will vary depending on the level of effort required to communicate the importance of proper maintenance and the number of systems in the area. Grand scale estimates of watershed septic systems were included in Section 9.3.2.

9.7 Information and Education

As discussed in Section 3, public education and participation is a key factor for TMDL and watershed plan implementation. Increased public awareness can increase implementation of BMPs. Small incremental improvements and individual adoption of BMPs can be achieved at a much lower cost compared to the large-scale BMPs identified above. Outreach and education efforts should focus on activities that support the watershed plan goals, including:

- Biological and water quality monitoring
- Encouraging native landscaping including buffers along streambanks
- Buffer (filter) strips
- Water conservation
- Green infrastructure
- Field visit days with demonstrations of agricultural conservation practices

An additional public meeting was held within the watershed to present the final TMDL results and the implementation plan. Additional recommended activities to support public outreach and education include:

- Websites and social media to publicize meetings, upcoming events, and links to resources
- E-mail updates
- Brochures with information on septic tanks
- Educational signs to educate viewers on water quality issues, purpose of BMPs, and environmental stewardship
- Public service announcements
- Informational meetings on State and Federal cost share programs

9.8 Project Funding

Cost-share programs at the state and federal level are available to landowners, homeowners, and farmers in the watershed to help offset costs of implementing many of the BMPs recommended in this report. Some of these programs are discussed below.

9.8.1 Available State-Level Programs for Nonpoint Sources

State-level programs to encourage landowners to implement resource-conserving practices for water quality and erosion control purposes are discussed in the following paragraphs.

9.8.1.1 Conservation Practices Cost-Share Program

The Conservation Practices Cost-Share Program (CPP) is a 10-year program. The practices consist of waterways, water and sediment control basins, pasture/hayland establishment, critical area, terrace system, no-till systems, diversions, and grade stabilization structures. The CPP is state-funded through the Illinois Department of Agriculture (IDA). There is a project cap of \$5,000 per landowner and costs per acre vary significantly from project to project.

9.8.1.2 Streambank Stabilization and Restoration Program

The Streambank Stabilization and Restoration Program (SSRP) was established to address problems associated with streambank erosion, such as loss or damage to valuable farmland, wildlife habitat, and roads; stream capacity reduction through sediment deposition; and degraded water quality, fish, and wildlife habitat. The primary goals of the SSRP are to develop and demonstrate vegetative, stone structure, and other low cost bio-engineering techniques for stabilizing streambanks and to encourage the adoption of low-cost streambank stabilization practices by making available financial incentives, technical assistance, and educational information to landowners with critically eroding streambanks. A cost share of 75 percent is available for approved project components such as willow post installation, bendway weirs, rock riffles, stream barbs/rock, vanes, lunger structures, gabion baskets, and stone toe protection techniques. There is no limit on the total program payment for cost-share projects that a landowner can receive in a fiscal year. However, maximum cost per foot of bank treated is used to cap the payment assistance on a per foot basis and maintain the program's objectives of funding low-cost techniques (Illinois Institute for Rural Affairs 2015). All project proposals must be sponsored and submitted by the local Soil and Water Conservation District (SWCD).

9.8.2 Available Federal-Level Programs for Nonpoint Sources

There are several voluntary conservation programs established by various federal agencies that encourage landowners to implement resource-conserving practices for water quality and erosion control purposes. These programs apply to crop fields as well as rural grasslands that are presently used for livestock grazing. Federal-level programs are discussed in the following paragraphs. The USEPA manages the Clean Water Act Section 319 Grants. The Farm Service Agency (FSA) oversees the Conservation Reserve Program (CRP) and the Grasslands Reserve Program (GRP). Voluntary conservation programs established through the 2014 U.S. Farm Bill, and managed by the NRCS, include the Agricultural Conservation Easement Program (ACEP), the Conservation Stewardship Program (CSP), and the Environmental Quality Incentives Program (EQIP).

9.8.2.1 Clean Water Act Section 319 Grants

Section 319 was added to the CWA to establish a national program to address nonpoint sources of water pollution. Through this program, each state is allocated Section 319 funds on an annual basis according to a national allocation formula based on the total annual appropriation for the section 319 grant program. The total award consists of two categories of funding: incremental funds and base funds. A state is eligible to receive USEPA 319(b) grants upon the USEPA's approval of the state's Nonpoint Source Assessment Report and Nonpoint Source Management Program. States may reallocate funds through sub-awards (e.g., contracts, sub-grants) to both public and private entities, including local governments, tribal authorities, cities, counties, regional development centers, local school systems, colleges and universities, local nonprofit organizations, state agencies, federal agencies, watershed groups, for-profit groups, and individuals.

USEPA designates incremental funds, a \$163-million award in 2016, for the restoration of impaired water through the development and implementation of watershed-based plans and TMDLs for impaired waters. Base funds, funds other than incremental funds, are used to provide staffing and support to manage and implement the state Nonpoint Source Management Program. Section 319 funding can be used to implement activities which improve water quality, such as filter strips, streambank stabilization, etc. (USEPA 2003).

Illinois EPA receives federal funds through Section 319(h) of the CWA to help implement Illinois' Nonpoint Source Pollution Management Program. The purpose of the program is to work cooperatively with local units of government and other organizations toward the mutual goal of protecting the quality of water in Illinois by controlling nonpoint source pollution. The program emphasizes funding for implementing cost-effective corrective and preventative BMPs on a watershed scale; funding is also available for BMPs on a non-watershed scale and the development of information/education nonpoint source pollution control programs.

The maximum Federal funding available is 60 percent of the total cost, with the remaining 40 percent coming from local match. The program period is two years unless otherwise approved. This is a reimbursement program.

Section 319(h) funds are awarded for the purpose of implementing approved nonpoint source management projects. The funding will be directed toward activities that result in the implementation of appropriate BMPs for the control of nonpoint source pollution or to enhance the public's awareness of nonpoint source pollution. Applications are accepted June 1 through August 1.

9.8.2.2 Conservation Reserve Program

The CRP is voluntary program, administered through the FSA, which encourages landowners to agree to remove environmentally sensitive land from agricultural production and plant long-term resource-conserving cover to improve water quality, prevent soil erosion, and reduce loss of wildlife habitat. The program was initially established in the Food & Security Act of 1985 and is the largest private-lands conservation program in the United States.

Participants can enroll in CRP in two ways and the duration of the contracts under CRP range from 10 to 15 years. The first enrollment method is through a competitive process known as the

CRP General Sign-up. These are announced on a periodic basis by the Secretary of Agriculture but do not occur on any fixed schedule. The second enrollment method is through CRP Continuous Sign-up, which is offered on a continuous basis. Continuous sign-up provides management flexibility to farmers and ranchers to implement certain high-priority conservation practices on eligible land. All enrollment offers are processed through the local FSA office.

Certain conditions must be met in order for land to be eligible for CRP enrollment. These conditions include the following:

1. The farmer applying for enrollment must have owned or operated the land for at least 12 months prior to the previous CRP sign-up period (except in cases of a change in ownership due to the previous owner's death, foreclosure, or land purchase by the new owner without the sole intention of placing it in the CRP).
2. Cropland that is planted or considered planted to an agricultural commodity for four of the six most recent crop years (including field margins) and must be physically and legally capable of being planted in a normal manner to an agricultural commodity.
3. Certain marginal pastureland suitable for use as any of the following conservation practices: buffer for wildlife habitat, wetlands buffer or restoration, filter strips, riparian buffer, grass waterway, shelter belt, living snow fence, contour grass strip, salt tolerant vegetation, or shallow water area for wildlife.

In addition to the eligible land requirements, cropland must meet one of the following criteria:

- Have a weighted average erosion index of 8 or higher
- Be expiring CRP acreage
- Be located in a national or state CRP conservation priority area.

The FSA bases rental rates on the relative productivity of soils within each county and the average dryland cash rent or cash-rent equivalent. The maximum rental rate for each offer is calculated in advance of enrollment. Producers may offer land at the maximum rate or at a lower rental rate to increase likelihood of offer acceptance. In addition, the FSA provides cost-share assistance for up to 50 percent of the participant's costs in establishing approved conservation practices (USDA 2016: <https://www.fsa.usda.gov/programs-and-services/conservation-programs/prospective-participants/index>). CRP annual rental payments may include an additional amount up to \$2 per acre per year as an incentive to perform certain maintenance obligations (up to \$7 for certain continuous sign-up practice).

Finally, the FSA offers additional financial incentives for certain continuous sign-up practices. Signing Incentive Payment is a one-time incentive payment of \$10/acre for each acre enrolled for each full year of the contract. Eligible practices include field windbreaks; grassed waterways; shelter belts; living snow fences; filter strips; riparian buffers; marginal pastureland wildlife and wetland buffers; bottom timber establishment; field borders; longleaf pine establishment; duck nesting habitat; SAFE buffers, wetlands, trees, longleaf pine, and grass; pollinator habitat; and several wetlands practices. The Performance Incentive Payment is a one-time incentive payment

made to participants who enroll land in CRP to be devoted to all continuous sign up practices except establishment of permanent vegetative cover on terraces, wetland restoration (including non-floodplain), bottomland timber establishment, and duck nesting habitat.

The maximum annual non-cost share payment that an eligible “person” can receive under the CRP is \$50,000 per fiscal year. This is a separate payment limitation applying only to CRP non-cost share payment.

The current extent of land enrolled in CRP within the Middle Sangamon River watershed is unknown.

9.8.2.3 Conservation Stewardship Program

The CSP helps agricultural producers maintain and improve their existing conservation systems and adopt additional conservation activities to address priority resources concerns. Participants earn CSP payments for conservation performance—the higher the performance, the higher the payment.

Through CSP, participants take additional steps to improve resource conditions including soil quality, water quality and quantity, air quality, habitat quality, and energy. CSP provides two types of payments through 5-year contracts: annual payments for installing new conservation activities and maintaining existing practices; and supplemental payments for adopting a resource-conserving crop rotation. Producers may be able to renew a contract if they have successfully fulfilled the initial contract and agree to achieve additional conservation objectives. Payments are made soon as practical after October 1 of each fiscal year for contract activities installed and maintained in the previous year. In fiscal year 2016, NRCS made \$150 million available for producers through the CSP.

Eligible lands include private and Tribal agricultural lands, cropland, grassland, pastureland, rangeland and non-industrial private forest land. CSP is available to all producers, regardless of operation size or type of crops produced, in all 50 states, the District of Columbia, and the Caribbean and Pacific Island areas. Applicants may include individuals, legal entities, joint operations, or Indian tribes that meet the stewardship threshold for at least two priority resource concerns when they apply. They must also agree to meet or exceed the stewardship threshold for at least one additional priority resource concern by the end of the contract. Producers must have effective control of the land for the term of the proposed contract, which include all eligible land in the agricultural operation. Some additional restrictions and program requirements may apply and interested applicants should contact the local NRCS office for more information.

9.8.2.4 Grassland Reserve Program

The purpose of the GRP, administered by the FSA, is to prevent grazing and pasture land from being converted into cropland, used for urban development, or developed for other non-grazing uses. Participants in the program voluntarily limit future development of the land while still being able to use the land for livestock grazing and activities related to forage and seed production. Some restrictions on activities may apply during the nesting season of certain bird species that are in decline or protected under federal or state law.

The GRP has several enrollment options, including a rental contract for 10, 15, or 20 years, or enrollment of the land in a conservation easement for an indefinite period of time. Applications are accepted any time and are processed through the local FSA office.

To be eligible for a rental agreement, the applicant must own or have control of the land for the length of the contract. To enroll in a conservation easement, the applicant must own and be willing to restrict use of the land either in perpetuity or under the maximum length of time under state law. Persons enrolled in GRP receive an annual rental payment for their enrolled acres. Rental payments were not available on the USDA website as of June 2016 (<https://www.fsa.usda.gov/programs-and-services/conservation-programs/grassland-reserve/index>); however, further information about the program, including payment amounts, eligibility and maintenance criteria, and land requirements may be obtained from the local FSA office.

9.8.2.5 Agricultural Conservation Easement Program

ACEP provides financial and technical assistance to help conserve agricultural lands and wetlands and their related benefits. Under the Agricultural Land Easements component, NRCS helps American Indian tribes, state and local governments, and non-governmental organizations protect working agricultural lands and limit non-agricultural uses of the land. Land protected by agricultural land easements provides additional public benefits, including environmental quality, historic preservation, wildlife habitat, and protection of open space. Under the Wetlands Reserve Easements component, NRCS helps to restore, protect, and enhance enrolled wetlands. Wetland Reserve Easements provide habitat for fish and wildlife, including threatened and endangered species, improve water quality by filtering sediments and chemicals, reduce flooding, recharge groundwater, protect biological diversity and provide opportunities for educational, scientific and limited recreational activities.

Agricultural Land Easements: NRCS provides financial assistance to eligible partners purchase Agricultural Land Easements that protect the agricultural use and conservation values of eligible land. In the case of working farms, the program helps farmers and ranchers keep their land in agriculture. The program also protects grazing uses and related conservation values by conserving grassland, including rangeland, pastureland and shrubland. Land eligible for agricultural easements includes cropland, rangeland, grassland, pastureland and non-industrial private forest land. NRCS will prioritize applications that protect agricultural uses and related conservation values of the land and those that maximize the protection of contiguous acres devoted to agricultural use.

To enroll land through agricultural land easements, NRCS enters into cooperative agreements with eligible partners. Each easement is required to have an agricultural land easement plan that promotes the long-term viability of the land. Under the Agricultural Land component, NRCS may contribute up to 50 percent of the fair market value of the agricultural land easement. Where NRCS determines that grasslands of special environmental significance will be protected, NRCS may contribute up to 75 percent of the fair market value of the agricultural land easement.

Wetland Reserve Easements: NRCS also provides technical and financial assistance to restore, protect, and enhance wetlands through the purchase of a wetland reserve easement. These agreements include the right for NRCS to develop and implement a wetland reserve restoration

easement plan to restore, protect, and enhance the wetland's functions and values. Land eligible for wetland reserve easements includes farmed or converted wetland that can be successfully and cost-effectively restored. NRCS will prioritize applications based on the easement's potential for protecting and enhancing habitat for migratory birds and other wildlife. For acreage owned by an Indian tribe, there is an additional enrollment option of a 30-year contract. Through the wetland reserve enrollment options, NRCS may enroll eligible land through one of the following:

- **Permanent Easements** – These are conservation easements in perpetuity. NRCS pays 100 percent of the easement value for the purchase of the easement. Additionally, NRCS pays between 75 to 100 percent of the restoration costs.
- **30-year Easements** – These expire after 30 years. Under 30-year easements, NRCS pays 50 to 75 percent of the easement value for the purchase of the easement. Additionally, NRCS pays between 50 to 75 percent of the restoration costs.
- **Term Easements** – Term easements are easements made for the maximum duration allowed under applicable State laws. NRCS pays 50 to 75 percent of the easement value for the purchase of the term easement. Additionally, NRCS pays between 50 to 75 percent of the restoration costs.
- **30-year Contracts** – 30-year contracts are only available to enroll acreage owned by Indian tribes, and program payment rates are commensurate with 30-year easements.

For wetland reserve easements, NRCS pays all costs associated with recording the easement in the local land records office, including recording fees, charges for abstracts, survey and appraisal fees, and title insurance.

Wetland Reserve Enhancement Partnership – The 2014 Farm Bill replaced the Wetland Reserve Enhancement Program with the Wetland Reserve Enhancement Partnership (WREP) as an enrollment option under ACEP. WREP continues to be a voluntary program through which NRCS signs agreements with eligible partners to leverage resources to carry out high priority wetland protection, restoration, and enhancement and to improve wildlife habitat.

- Partner benefits through WREP agreements include:
 - Wetland restoration and protection in critical areas
 - Ability to cost-share restoration or enhancement beyond NRCS requirements through leveraging
 - Able to participate in the management or monitoring of selected project locations
 - Ability to use innovative restoration methods and practices

In 2016, NRCS made \$15 million in financial and technical assistance available to help eligible conservation partners leverage local resources to voluntarily protect, restore, and enhance critical wetlands on private and tribal agricultural land nationwide. The funding is provided through the WREP, a special enrollment option under the Agricultural Conservation Easement Program. Proposals were due to the local NRCS offices by May 16, 2016; however, landowners

should check with the NRCS to see about applying in future years. To enroll land eligible partners may submit proposals to the local NRCS office.

9.8.2.6 Environmental Quality Incentive Program

EQIP is a voluntary program that provides financial and technical assistance to agricultural producers to plan and implement conservation practices that improve soil, water, plant, animal, air, and related natural resources on agricultural land and non-industrial private forestland. Through EQIP, the NRCS develops contracts with agricultural producers to implement conservation practices to address environmental natural resource problems. Persons engaged in livestock or agricultural production and owners of non-industrial private forestland are eligible for the program. Eligible land includes cropland, rangeland, pastureland, private non-industrial forestland, and other farm or ranch lands. Eligible applicants must, at a minimum, meet the following criteria; additional program requirements may apply:

- Be agricultural producer (person, legal entity, or joint operation who has an interest in the agricultural operation, or who is engaged in agricultural production or forestry management).
- Control or own eligible land.
- Comply with adjusted gross income for less than \$900,000. Note: Federally recognized Native American Indian Tribes or Alaska Native corporations are exempt from the adjusted gross income payment limitations.
- Be in compliance with the highly erodible land and wetland conservation requirements.
- Develop an NRCS EQIP plan of operations that addresses at least one natural resource concern

Persons interested in entering into a cost-share agreement with the NRCS for EQIP assistance may file an application at any time; however, each state may establish deadlines for one or more application periods in which to consider eligible applications for funding. Applications submitted after the deadlines will be evaluated and considered for funding during later funding opportunities.

As part of the program, a Conservation Activity Plan (can be developed for producers to address a specific natural resource concern on their agricultural operation. Each plan is developed by a certified Technical Service Provider, who is selected by the EQIP participant. Technical assistance payments for Technical Service Providers do not count against the financial assistance aggregate payment limitation or the contract financial assistance payment limitation. The plan becomes the basis of the EQIP contract between NRCS and the participant, and the contracts can be up to 10 years in duration. Financial assistance payments are made to eligible producers once conservation practices are completed according to NRCS requirements. Payment rates are set for each fiscal year and are attached to the EQIP contract when it is approved.

Historically underserved producers (limited resource farmers/ranchers, beginning farmers/ranchers, socially disadvantaged producers, Indian Tribes, and veteran farmer or ranchers) who self-certify on Form NRCS-CPA-1200, Conservation Program Application are

eligible for a higher practice payment rate to support implementation of contracted conservation practices and activities. Historically underserved producers may also be issued advance payments up to 50 percent of the established payment rate to go toward purchasing materials or contracting services to begin installation of approved conservation practices. Self-certified socially disadvantaged farmer/rancher, beginning farmer/rancher, and veteran farmer/rancher producers may elect to be evaluated in special EQIP funding pools. More information can be obtained from the local NRCS office.

EQIP provides payments up to 75 percent of the incurred costs and 100 percent estimated income foregone of certain conservation practices and activities. Payments received by producers through EQIP contracts after February 7, 2014 may not exceed \$450,000 for all EQIP contracts entered into during the period from 2014 to 2018. Payment limitations for organic production may not exceed an aggregate \$20,000 per fiscal year or \$80,000 during any 6-year period for installing conservation practices.

Conservation practices eligible for EQIP funding which are recommended BMPs for this watershed TMDL include filter strips, conservation tillage, grade stabilization structures, grass waterways, riparian buffers, streambank/shoreline protection, terraces, and wetland restoration. More information regarding state and local EQIP implementation can be found at <http://www.nrcs.usda.gov/wps/portal/nrcs/main/il/programs/financial/eqip/>.

9.8.3 Local Program Contact Information

The FSA administers the CRP and GRP. NRCS administers the ACEP, CSP, and EQIP. Local contact information for counties containing some portion of the Middle Sangamon River watershed are listed in the **Table 9-7** below.

Table 9-7 Local SWCD, NRCS, FSA, and IDA Contact Information

County	Address	Phone
State FSA Office		
	Illinois State FSA Office 3500 Wabash Avenue Springfield, IL 62711	(217) 241-6600
Local NRCS/Soil and Water Conservation District Office		
Christian County	620 N. Webster Street Taylorville, IL 62568	(217) 287-1315
Macon County	4004 College Park Road Decatur, IL 62521	(217) 877-5670
Sangamon County	2623 Sunrise Drive, Suite 1 Springfield, IL 62703-8302	(217) 241-6635
Local IDA Office for SSRP		
	P.O. Box 19281, State Fairgrounds Springfield, IL 62794-9281	(217) 782-6297

9.9 Planning Level Cost Estimates for Implementation Measures

Cost estimates for different implementation measures are presented in **Table 9-8**. The column labeled "Program" or "Sponsor" lists the financial assistance program or sponsor available for various BMPs (as discussed in Section 9.9). IEPA 319 Grants are applicable to all of the practices.

Table 9-8 Cost Estimates of Various BMP Measures

BMP	Units	Installation Cost	Program	Sponsor(s)
Filter strip (seeded)	per ac	\$520 - \$639, avg \$594	CRP	NRCS, IDA
Riparian buffer – bare-root shrubs	each	\$1.10 - \$1.65	CRP	NRCS, IDA
– forested	per ac	\$741		
– herbaceous cover	per ac	\$642		
– land preparation	per ac	\$38		
Livestock exclusion	per ac		EQIP	NRCS
Fencing – permanent high-tensile, 1 strand	per ft	\$0.79		
– permanent high-tensile, 2-3 strands	per ft	\$1.16		
– permanent high-tensile, 4-6 strands	per ft	\$1.42		
– permanent high-tensile, 7 or more strands	per ft	\$1.78		
– barbed wire, multi-strand	per ft	\$1.62		
– woven wire	per ft	\$1.96		
Alternate water			EQIP	NRCS
– access ramp	per SF	\$1.44		
– tanks, at or above ground	each	\$153 - \$3,717;		
– tanks, at or above ground, heavy use protection	per SF	\$0.86 - \$4.91		
– tanks, frost-free waterer	each	\$1,011		
– tank, below ground	each	\$3,600		
– tank, below ground, pipeline and pump	per ft each	\$1.94 - \$3.38/ft for pipeline, \$961/pump		
Water and sediment control basin	per CY	avg \$2.70	CPP	IDA
– underground outlet, plastic	per ft	\$2.27		
Terraces	per ft	\$1.66 - \$5.39	CPP	IDA
Bank stabilization	per ac	\$27 - \$52/ft	SSRP	IDA
– weirs/rock riffles	each	\$2,448 - \$6,305		
– stream barb/bendway weir with longitudinal peaked stone toe	per ft	\$27.27 - \$52.50		
– bank armor	per CY	\$37.55		

BMP	Units	Installation Cost	Program	Sponsor(s)
Grade stabilization			CPP, SSRP	IDA
– concrete block chutes	per SF	\$7.81		
– rip rap-lined (rock) chute	per CY	\$48.73		
– gully pipe structure	per CY	\$5.20		
– overfall structure	per SF	\$119.11 - \$194.01		
– pipe drop grade structure	per SF	\$10.24		
Grassed waterway	per ac	\$2,568 - \$4,916	CPP CRP	IDA NRCS
Conservation tillage			EQIP	NRCS, IDA
– no-till/strip-till	per ac	\$16		
– mulch-till	per ac	\$4.21		
– ridge-till	per ac	\$30		
Contour farming	per ac	\$6.06	EQIP	NRCS
Vegetation and mulch as needed for various BMPs, such as alternate water access ramp and WASCOBs	per ac	\$716 for vegetation, \$238 for mulch	See corresponding program and sponsor listed above	
Septic system maintenance	per event	\$250 - \$350	Private system owner	

ac = acre CY = cubic yard
ft = foot SF = square foot

9.10 Milestones and Monitoring

9.10.1 Interim Measurable Milestones and Schedule

Successful plan implementation relies on establishing and tracking milestones to measure progress. **Table 9-9** identifies these milestones and a schedule for meeting each milestone. Stakeholders should evaluate milestone progress on an annual basis and implement adaptive management to modify the management measures, milestones, and schedules as necessary.

Implementation of the management actions outlined in this section should occur in phases, often over the course of several years, with effectiveness assessments made as improvements are completed. The process of obtaining funding, and developing and implementing projects designed to improve water quality, can take months or years to complete and once in place, improvements in water quality as a result of BMPs may not be detectable for several years. Continued monitoring and reevaluation of the implementation measures during this time will allow for more expedient adjustment to BMP implementation measures that may result in earlier attainment of water quality targets.

Table 9-9 Implementation Milestones

Milestones	Description	Estimated Schedule
Funding	Develop grant application(s)	Short term: 2-5 years
Implement Short-term Projects	Identify and implement short-term pilot projects that can be completed (i.e., willing landowners and available funding)	Mid-term: 2-5 years
Monitoring	Implement monitoring plan	Continuous: 1-20 years
Annual Stakeholder meetings	Stakeholders will convene once a year to gauge progress and discuss evolving needs and planned activities	Annually
Implement Larger Projects	Identify and implement larger projects. These projects are more likely to have multiple funding sources and stakeholders.	Mid- Term: 5-10 years
Education and outreach	Prepare and implement and education and outreach plan. Conduct at least two public meetings annually.	Immediate: 1-2 years

9.10.2 Monitoring Plan

The purpose of the monitoring plan for the Middle Sangamon River watershed is to assess the overall implementation of the management actions outlined in this section. This can be accomplished by conducting the monitoring programs designed to:

- Track implementation of BMPs in the watershed
- Estimate effectiveness of BMPs
- Further monitor point source discharges in the watershed
- Continue monitoring of impaired stream segments and tributaries, including low-flow monitoring of fecal coliform and periodic visual assessments of sedimentation/siltation
- Conduct an urban storm sewer survey to assess contributions to pollutant loading in receiving waters
- Monitor storm-based high flow events

Tracking the implementation of the management measures can be used to:

- Determine the extent to which the management measures and practices have been implemented compared to the actions needed to meet the TMDL endpoints
- Establish a baseline from which decisions can be made regarding the need for additional incentives for implementation efforts
- Measure the extent of voluntary implementation efforts
- Support the work-load and costing analyses for assistance or regulatory programs
- Determine the extent to which management measures are properly maintained and operated

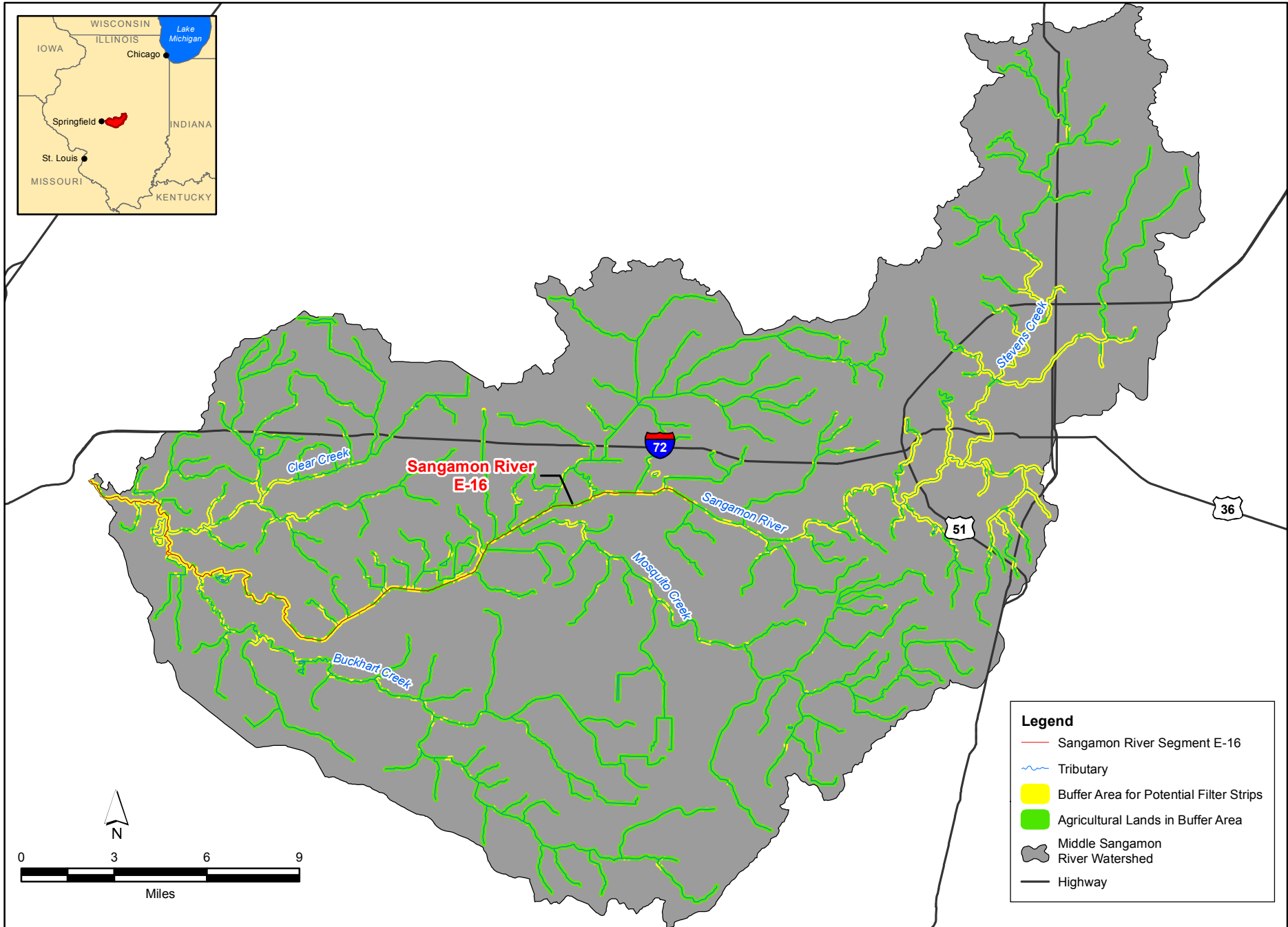
Estimating the effectiveness of the BMPs implemented in the watershed could be completed by monitoring before and after the BMP is incorporated into the watershed. Additional monitoring could be conducted on specific structural systems such as a sediment control basin. Inflow and outflow measurements could be conducted to determine site-specific removal efficiency.

Illinois EPA conducts Intensive Basin Surveys every 5 years. Additionally, select ambient sites are monitored nine times a year. Continuation of this state monitoring program will assess stream water quality as improvements in the watershed are completed. This data will also be used to assess whether water quality standards in the impaired segments are being attained.

9.10.3 Success Criteria

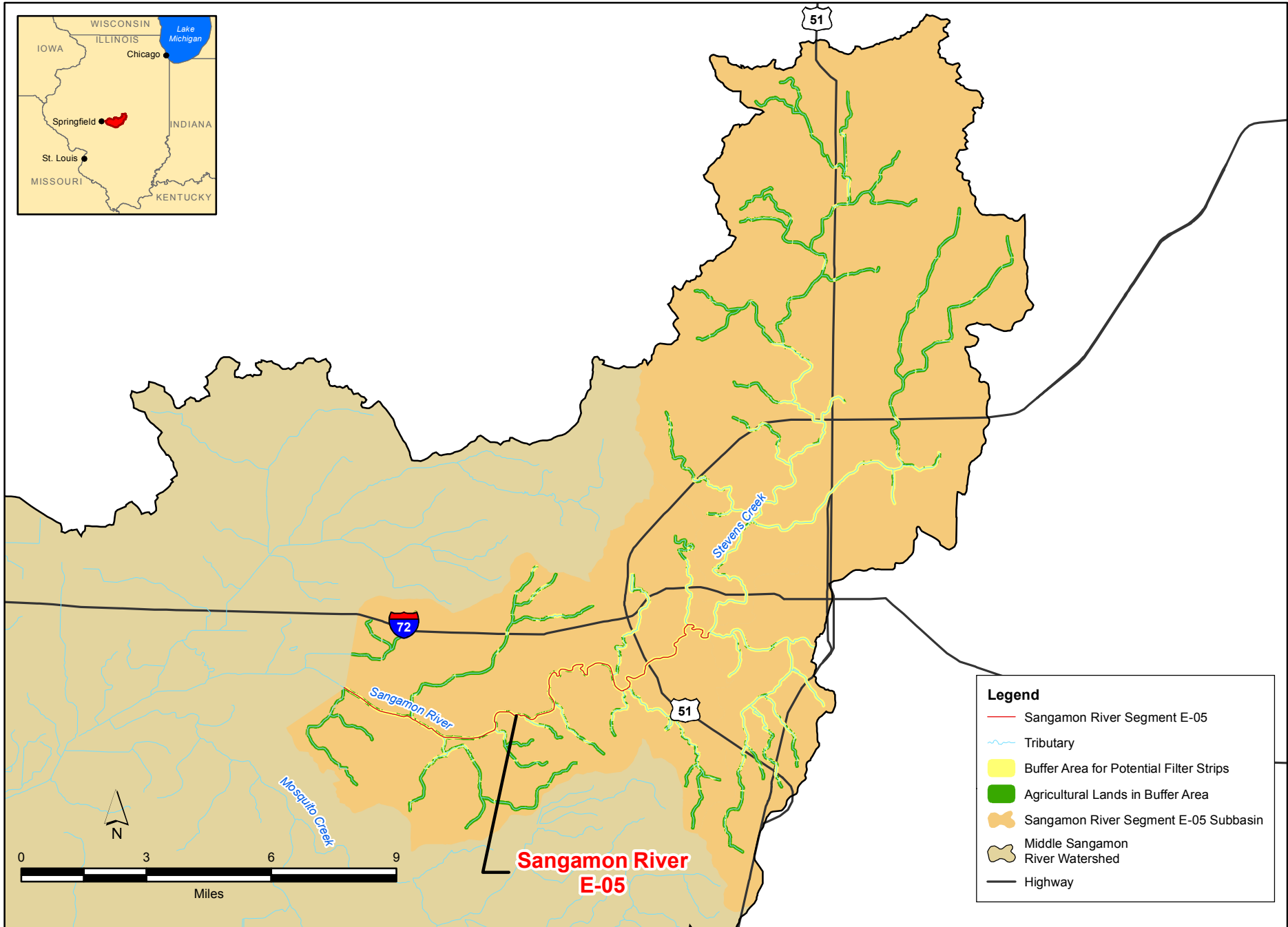
Measuring the plan's success depends largely on tracking the milestones outlined above. Implementing BMPs should equate to improved water quality and attainment of designated uses and water quality standards. Monitoring pollutant-load reductions will be the primary success criteria. Key components include:

- Securing funding for priority projects within 5 years
- Meeting the identified milestones
- Meeting 25-50% of target reductions within 10 years
- Meeting 100% of target reductions within 20 years
- Utilizing adaptive management to ensure best practices
- Delisting of the impaired waterbodies



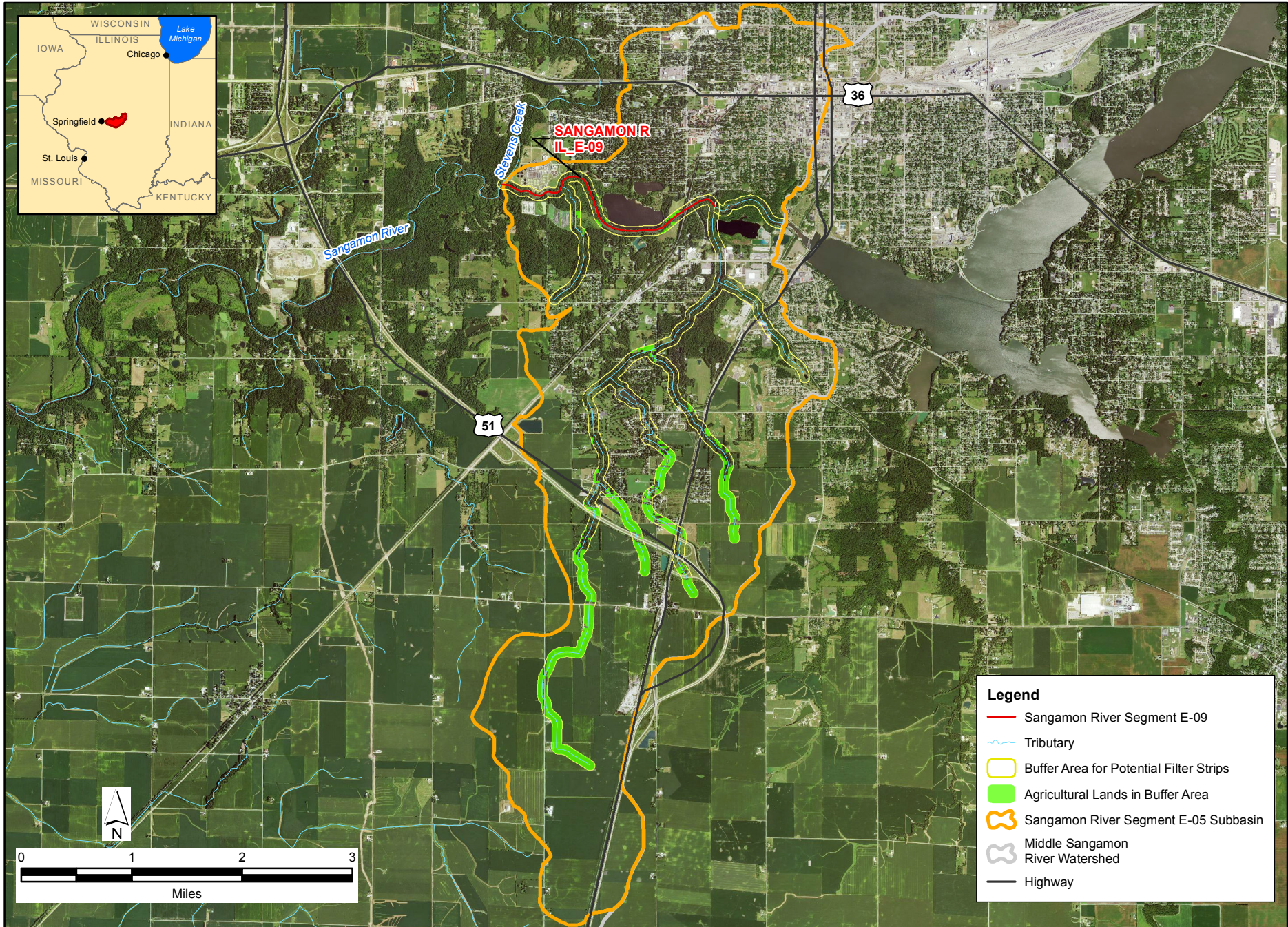
Middle Sangamon River Segment E-16
Buffer Areas and Agricultural Lands Potentially Suitable for Conversion to Filter Strips

This page intentionally left blank



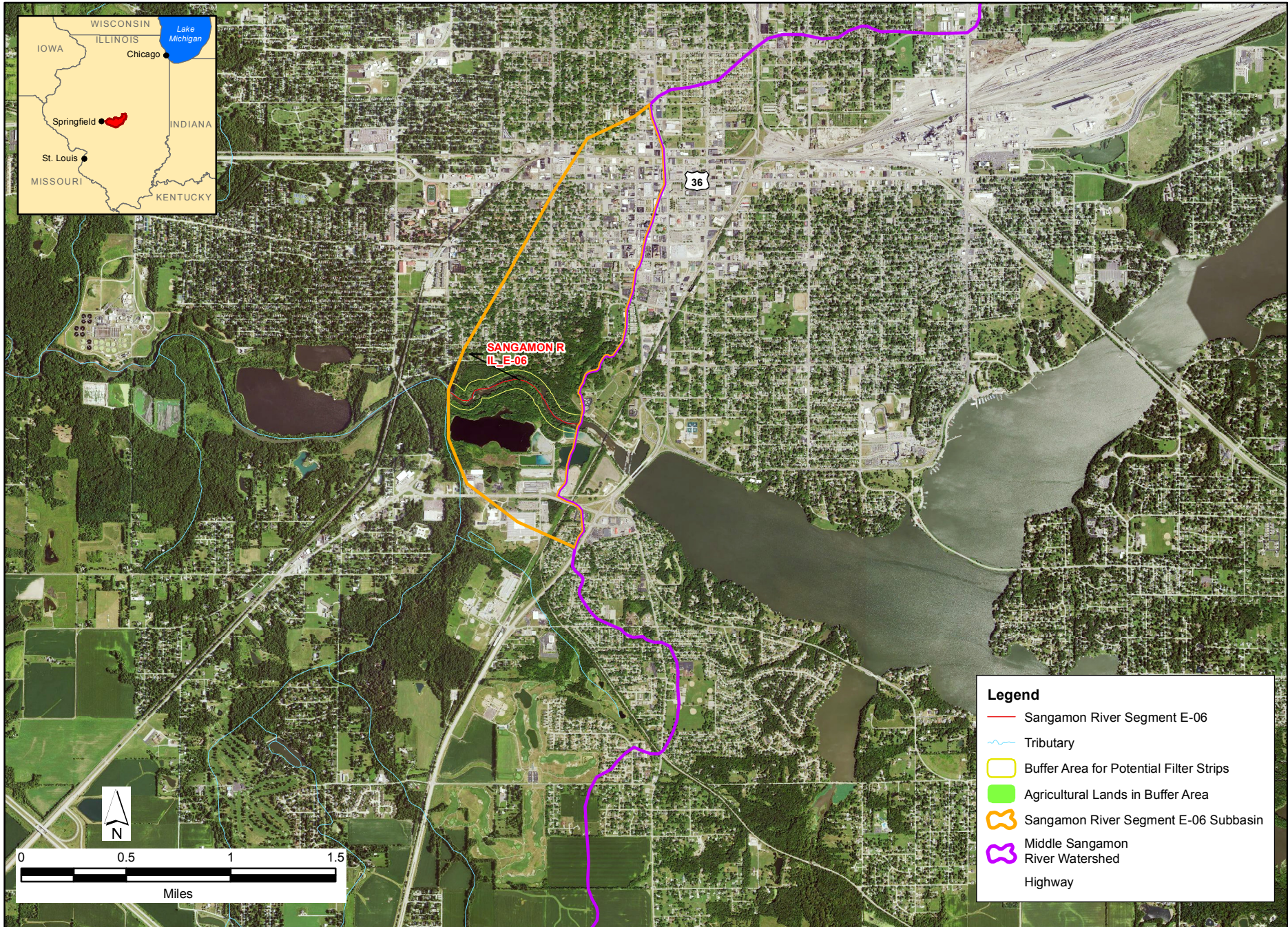
**Middle Sangamon River Segment E-05
Buffer Areas and Agricultural Lands Potentially Suitable for Conversion to Filter Strips**

This page intentionally left blank



Middle Sangamon River Segment E-09
Buffer Areas and Agricultural Lands Potentially Suitable for Conversion to Filter Strips

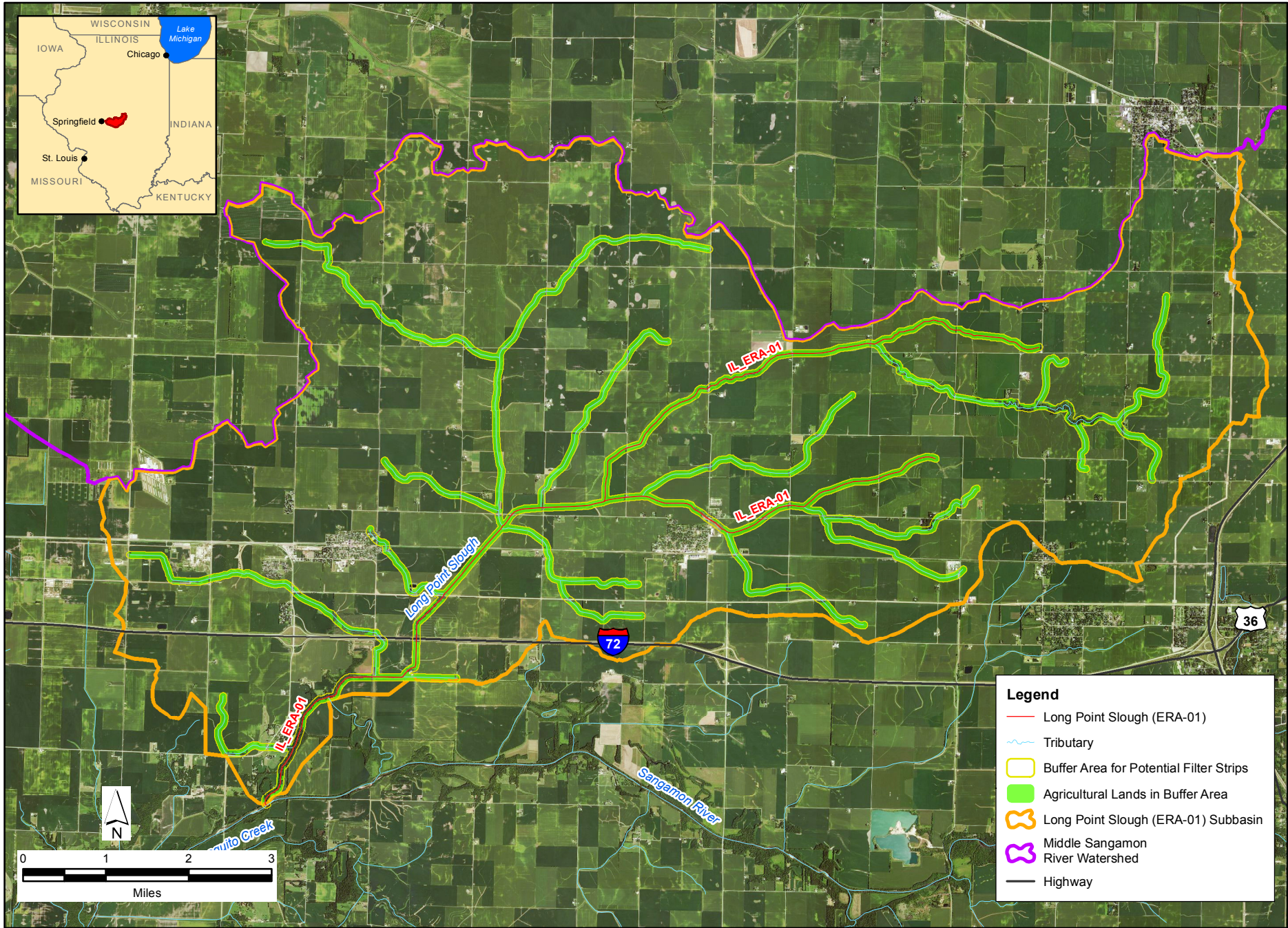
This page intentionally left blank



Middle Sangamon River Segment E-06

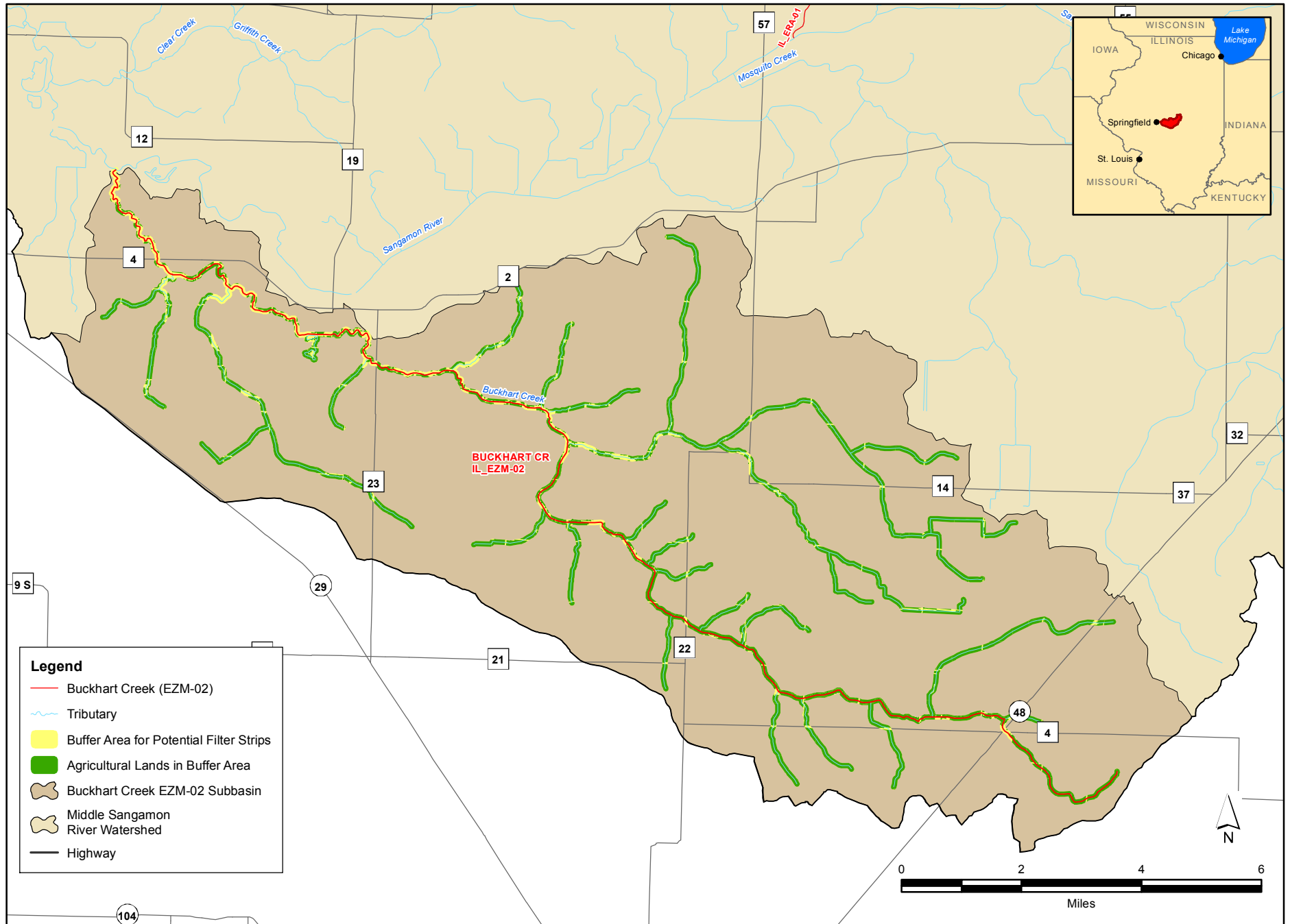
Buffer Areas and Agricultural Lands Potentially Suitable for Conversion to Filter Strips

This page intentionally left blank



Long Point Slough Segment ERA-01
Buffer Areas and Agricultural Lands Potentially Suitable for Conversion to Filter Strips

This page intentionally left blank



Buckhart Creek Segment EZM-02
Buffer Areas and Agricultural Lands Potentially Suitable for Conversion to Filter Strips

This page intentionally left blank

Section 10

References

British Columbia Ministry of Forests. 2000. Definitions of Adaptive Management.

(<http://www.for.gov.bc.ca/hfp/amhome/Amdefs.htm>)

Bedinger, M. S., J. S. Fleming, and A. I. Johnson. Site characterization and design of on-site septic systems. ASTM STP 1324. West Conshohocken, Penn.: ASTM. 1997. e320pp.

Brown, L.C. and Barnwell, T.O. 1987. The enhanced stream water quality models QUAL2E and QUAL2E-UNCAS: documentation and user manual. EPA-600-3-87-007, US Environmental Protection Agency, Athens, GA.

Chapra, S. C., 1997. Surface Water Quality Modeling. McGraw Hill. Boston, Massachusetts.

Cooke, G.D., E.B. Welch, S.A. Peterson, and P.R. Newroth. 1993. Restoration and management of lakes and reservoirs. Lewis Publishers, Boca Raton, FL. 548 pp.

Denison, D. and D. Tilton. 1993. Rouge River National Wet Weather Demonstration Program: Technical Memorandum. Rouge River Project: RPO-NPS-TM-12.01. August.

Devlin, D.L., Regehr, D.L., Barnes, P.L. 2000. Managing to Minimize Atrazine Runoff. Kansas State University Agricultural Experiment Station and Cooperative Extension Service.

<http://www.ksre.ksu.edu/library/CRPSL2/MF2208.pdf>

IILCP (Illinois Interagency Landscape Classification Project). 1999-2000: Land Cover of Illinois.

<http://www.agr.state.il.us/gis/landcover99-00.html>

IDA (Illinois Department of Agriculture). 2006.<http://www.agr.state.il.us/Environment/conserv/index.html>

Illinois Department of Agriculture (IDA). 2004. 2004 Illinois Soil Conservation Transect Survey Summary.

Illinois Department of Natural Resources (IDNR), Illinois Natural History Survey (INHS), Illinois Department of Agriculture (IDA), United States Department of Agriculture (USDA) National Agricultural Statistics Survey (NASS)'s 1:1000,000 Scale Land Cover of Illinois 1999-2000. Raster Digital Data. Version 2.0, Sept 2003. <http://www.inhs.uiuc.edu/cwe/gap/landcover.htm>

Illinois EPA (Illinois Environmental Protection Agency). 2005a. Point source discharge information, Illinois Environmental Protection Agency.

Illinois Natural Resources Geospatial Data Clearinghouse. 2005 Illinois Digital Orthophoto Quarter Quadrangle Data. <http://www.isgs.uiuc.edu/nsdihome/webdocs/doq05/>

IPCB. Title 35: Environmental Protection, Subtitle C: Water Pollution, Part 302: Water Quality Standards. Retrieved from <http://www.ipcb.state.il.us/documents/dsweb/Get/Document-33354>. Accessed May 27, 2016.

ISGS (Illinois State Geological Survey). 2010. Illinois Coal Resource Shapefiles. Download: <http://www.isgs.illinois.edu/maps-data-pub/coal-maps/coalshapefiles.shtml>

ISWS (Illinois State Water Survey). 2015. State Climatologist Office for Illinois: Pan Evaporation across Illinois. <http://www.isws.illinois.edu/atmos/statecli/Pan-Evap/Panevap.htm>

Kovacic, D.A., M.B. David, L.E. Gentry, K.M. Starks and R.A. Cooke. 2000 Effectiveness of constructed wetlands in reducing nitrogen and phosphorus export from agricultural tile drainage. *J. Environ. Qual.* 29:1262-1274.

Ledwith, Tyler. 1996. Effects of Buffer Strip Width on Air Temperature and Relative Humidity in a Stream Riparian Zone. *Watershed Management Council Networker*; 6(4):6-7. http://www.watershed.org/news/sum_96/buffer.html

NCDC (National Climatic Data Center). 2008. Weather stations.

NRC (National Research Council). 1992. *Restoration of Aquatic Ecosystems: Science, Technology, and Public Policy*. National Academy of Sciences. Washington, D.C.

NRCS (Natural Resources Conservation Service). 2015. EQIP Fact Sheet. <http://www.nrcs.usda.gov/PROGRAMS/EQIP/>

NRCS (Natural Resources Conservation Service) 2004. Wetland Reserves Program. <http://www.nrcs.usda.gov/programs/WRP/>

NRCS (Natural Resources Conservation Service). 2003. Conservation Practice Standard: Filter Strip. <https://efotg.sc.egov.usda.gov/references/public/IL/IL393.pdf>

NRCS (Natural Resources Conservation Service). 1996. Conservation Practice Standard: Filter Strip. <https://efotg.sc.egov.usda.gov/references/public/IL/IL393.pdf>

Osmond, D.L., J. Spooner, and D.E. Line. 1995. *Systems of Best Management Practices for Controlling Agricultural Nonpoint Source Pollution: The Rural Clean Water Program Experience*. North Carolina State University Water Quality Control Group: brochure 6. March.

Sharpley, A.N., T. Daniel, T. Sims, J. Lemunyon, R. Stevens, and R. Parry. 1999. *Agricultural Phosphorus and Eutrophication*. United States Department of Agriculture: ARS-149. July. <http://www.ars.usda.gov/is/np/Phos&Eutro/phos%26eutro.pdf>

USACE (United States Army Corps of Engineers). 1999. *Simplified Procedures for Eutrophication and Assessment and Prediction: User Manual*. William Walker. Instruction Report W-96-2. Waterways Experiment Station. USACE Headquarters.

USACE (United States Army Corps of Engineers) in cooperation with FEMA's National Dam Safety Program. 2010. *National Inventory of Dams*. <http://www.tec.army.mil/nid>

- USDA (United States Department of Agriculture). 2014. Farm Service Agency Online: Conservation Fact Sheet: Conservation Reserve Program Continuous Sign-Up. https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdafiles/FactSheets/2014/crp_consv_contin.pdf
- USDA (United States Department of Agriculture). 2013. Farm Service Agency Online: Conservation Reserve Program Fact Sheet. https://www.fsa.usda.gov/Internet/FSA_File/crpfactsheet0213.pdf
- USEPA (U.S. Environmental Protection Agency). 2007. An Approach for Using Load Duration Curves in the Development of TMDLs. Office of Wetlands, Oceans and Watersheds. EPA 841-B-07-006. Available at: <http://www.epa.gov/owow/tmdl/techsupp.html>
- USEPA (U.S. Environmental Protection Agency). 2004a. BASINS - Better Assessment Science Integrating Point and Nonpoint Sources. Download: BASINS Data. <http://www.epa.gov/OST/BASINS/>
- USEPA (U.S. Environmental Protection Agency). 2004b. STORET – Storage and Retrieval. Download: Water Quality Data. <http://www.epa.gov/storet/>
- USEPA (U.S. Environmental Protection Agency). 2003. National Management Measures to Control Nonpoint Source Pollution from Agriculture. EPA 841-B-03-004, July 2003.
- USEPA (U.S. Environmental Protection Agency). 1999. Draft Guidance for Water Quality-based Decisions: The TMDL Process (Second Edition). Office of Water. EPA 841/D/99/001.
- USEPA (U.S. Environmental Protection Agency). 1997. Compendium of Tools for Watershed Assessment and TMDL Development. Office of Water. EPA/841/B/97/006.
- US Fish and Wildlife Service. 2006. National Wetlands Inventory. <http://www.fws.gov/nwi/>
- USGS (U.S. Geological Survey). 2010. Daily Streamflow. Download: Daily Flows for Stream Gage 05597500 (Crab Orchard Creek near Marion, Illinois). <http://waterdata.usgs.gov/nwis>.
- Welch, E.B. 1992. Ecological effects of wastewater. 2nd Edition. Chapman and Hall, New York, NY.
- Wetzel, R. G. 1983. Limnology. Saunders College Publishing. Orlando, Florida. pp. 289–297.

This page intentionally left blank.

Appendix A

Land Use Categories

Land Cover code	Land Cover Category	Area (acres)	Percent (%)	Category
1	Corn	141945.7327	43.24%	Ag
5	Soybeans	103514.347	31.53%	Ag
176	Grass/Pasture	21725.52985	6.62%	Grasslands/Forest
122	Developed/Low Intensity	16872.42958	5.14%	Developed
121	Developed/Open Space	16266.84842	4.96%	Developed
141	Deciduous Forest	15847.18935	4.83%	Grasslands/Forest
123	Developed/Med Intensity	4566.433318	1.39%	Developed
111	Open Water	2022.013915	0.62%	Wetlands/Water
190	Woody Wetlands	1959.076175	0.60%	Wetlands/Water
124	Developed/High Intensity	1848.768333	0.56%	Developed
24	Winter Wheat	1085.286835	0.33%	Ag
36	Alfalfa	220.6156846	0.07%	Ag
131	Barren	173.2455829	0.05%	Ag
26	Dbl Crop WinWht/Soybeans	101.4120486	<0.1%	Ag
37	Other Hay/Non Alfalfa	58.04505411	<0.1%	Ag
195	Herbaceous Wetlands	21.34990496	<0.1%	Wetlands/Water
58	Clover/Wildflowers	15.56763903	<0.1%	Grasslands/Forest
12	Sweet Corn	13.12129576	<0.1%	Ag
61	Fallow/Idle Cropland	9.34058342	<0.1%	Ag
241	Dbl Crop Corn/Soybeans	6.671845299	<0.1%	Ag
42	Dry Beans	2.223948433	<0.1%	Ag
236	Dbl Crop WinWht/Sorghum	1.779158747	<0.1%	Ag
13	Pop or Orn Corn	1.556763903	<0.1%	Ag
59	Sod/Grass Seed	0.889579373	<0.1%	Ag
76	Walnuts	0.66718453	<0.1%	Ag
6	Sunflower	0.444789687	<0.1%	Ag
23	Spring Wheat	0.444789687	<0.1%	Ag
60	Switchgrass	0.444789687	<0.1%	Ag
28	Oats	0.222394843	<0.1%	Ag
27	Rye	0.222394843	<0.1%	Ag

Appendix B

SSURGO Soil Series

Hydrologic Soil Group	Acres	Percent Watershed
B/D	125985.78	38.37
B	115280.54	35.11
C/D	68337.88	20.82
C	13717.86	4.18
	2523.21	0.77
D	2101.75	0.64
A	362.79	0.11
Total	328,310	100

SSURGO Soil Series Code	SSURGO Soil Series Code Definition	Acres	Percent of Watershed
88C	Sparta loamy sand, 6 to 12 percent slopes	274.46	0.08
131C2	Alvin fine sandy loam, 5 to 10 percent slopes, eroded	2061.46	0.63
131D2	Alvin fine sandy loam, 10 to 18 percent slopes, eroded	862.94	0.26
570D2	Martinsville silt loam, 6 to 12 percent slopes, eroded	335.78	0.10
68A	Sable silty clay loam, 0 to 2 percent slopes	56523.48	17.22
152A	Drummer silty clay loam, 0 to 2 percent slopes	24641.11	7.51
3107A	Sawmill silty clay loam, 0 to 2 percent slopes, frequently flooded	11237.73	3.42
722A	Drummer-Milford silty clay loams, 0 to 2 percent slopes	3451.25	1.05
67A	Harpster silty clay loam, 0 to 2 percent slopes	1984.43	0.60
330A	Peotone silty clay loam, 0 to 2 percent slopes	563.71	0.17
138A	Shiloh silty clay loam, 0 to 2 percent slopes	552.70	0.17
712A	Spaulding silty clay loam, 0 to 2 percent slopes	529.13	0.16
618D3	Senachwine clay loam, 10 to 18 percent slopes, severely eroded	320.70	0.10
249A	Edinburg silty clay loam, 0 to 2 percent slopes	318.16	0.10
138A	Shiloh silty clay loam, 0 to 2 percent slopes	207.91	0.06
1083A	Wabash silty clay, undrained, 0 to 2 percent slopes, frequently flooded	170.11	0.05
3083A	Wabash silty clay, 0 to 2 percent slopes, frequently flooded	149.82	0.05
153A	Pella silty clay loam, 0 to 2 percent slopes	31.31	0.01
43A	Ipava silt loam, 0 to 2 percent slopes	58027.00	17.67
154A	Flanagan silt loam, 0 to 2 percent slopes	24435.09	7.44
86B	Oscos silt loam, 2 to 5 percent slopes	20796.05	6.33
244A	Hartsburg silty clay loam, 0 to 2 percent slopes	12366.59	3.77
198A	Elburn silt loam, 0 to 2 percent slopes	7794.49	2.37
3284A	Tice silty clay loam, 0 to 2 percent slopes, frequently flooded	5527.79	1.68
199B	Plano silt loam, 2 to 5 percent slopes	2079.33	0.63
684B	Broadwell silt loam, 2 to 5 percent slopes	1978.07	0.60
679B	Blackberry silt loam, 2 to 5 percent slopes	1640.03	0.50
56B	Dana silt loam, 2 to 5 percent slopes	1464.31	0.45
3284A	Tice silty clay loam, 0 to 2 percent slopes, frequently flooded	1351.15	0.41
622C2	Wyanet silt loam, 5 to 10 percent slopes, eroded	1115.82	0.34
749B	Buckhart silt loam, till substratum, 2 to 5 percent slopes	865.56	0.26

SSURGO Soil Series Code	SSURGO Soil Series Code Definition	Acres	Percent of Watershed
199A	Plano silt loam, 0 to 2 percent slopes	805.38	0.25
3073A	Ross silt loam, 0 to 2 percent slopes, frequently flooded	576.25	0.18
7148A	Proctor silt loam, 0 to 2 percent slopes, rarely flooded	563.46	0.17
148B	Proctor silt loam, 2 to 5 percent slopes	364.59	0.11
737B	Tama silt loam, very deep to sand, 2 to 5 percent slopes	361.77	0.11
7199B	Plano silt loam, 2 to 5 percent slopes, rarely flooded	236.76	0.07
622B2	Wyanet silt loam, 2 to 5 percent slopes, eroded	213.31	0.06
687C2	Penfield loam, 5 to 10 percent slopes, eroded	161.78	0.05
206A	Thorp silt loam, 0 to 2 percent slopes	160.44	0.05
7198A	Elburn silt loam, 0 to 2 percent slopes, rarely flooded	76.51	0.02
8070A	Beaucoup silty clay loam, 0 to 2 percent slopes, occasionally flooded	69.59	0.02
481A	Raub silt loam, 0 to 2 percent slopes	40.81	0.01
748B	Plano silt loam, sandy substratum, 2 to 5 percent slopes	33.88	0.01
802B	Orthents, loamy, undulating	25.10	0.01
3405A	Zook silty clay loam, 0 to 2 percent slopes, frequently flooded	16.77	0.01
748A	Plano silt loam, sandy substratum, 0 to 2 percent slopes	9.71	0.00
128B	Douglas silt loam, 2 to 7 percent slopes	8.44	0.00
272A	Edgington silt loam, 0 to 2 percent slopes	6.75	0.00
256C2	Pana silt loam, 5 to 10 percent slopes, eroded	5.74	0.00
737A	Tama silt loam, very deep to sand, 0 to 2 percent slopes	3.11	0.00
726A	Elburn silt loam, sandy substratum, 0 to 2 percent slopes	0.33	0.00
3451A	Lawson silt loam, 0 to 2 percent slopes, frequently flooded	3497.22	1.07
705A	Buckhart silt loam, 0 to 2 percent slopes	1839.81	0.56
8D2	Hickory loam, 10 to 18 percent slopes, eroded	1539.80	0.47
618D2	Senachwine silt loam, 10 to 18 percent slopes, eroded	1248.18	0.38
618C2	Senachwine silt loam 5 to 10 percent slopes, eroded	860.24	0.26
3077A	Huntsville silt loam, 0 to 3 percent slopes, frequently flooded	519.63	0.16
36B	Tama silt loam, 2 to 5 percent slopes	506.16	0.15
8D3	Hickory clay loam, 10 to 18 percent slopes, severely eroded	164.87	0.05
570F	Martinsville loam, 18 to 35 percent slopes	83.00	0.03
8396A	Vesser silt loam, 0 to 2 percent slopes, occasionally flooded	81.15	0.02
8D	Hickory silt loam, 10 to 18 percent slopes	56.20	0.02
171B	Catlin silt loam, 2 to 5 percent slopes	11985.27	3.65
705B	Buckhart silt loam, 2 to 5 percent slopes	4834.83	1.47
3074A	Radford silt loam, 0 to 2 percent slopes, frequently flooded	4485.32	1.37
675B	Greenbush silt loam, 2 to 5 percent slopes	2617.63	0.80
86C2	Oscos silt loam, 5 to 10 percent slopes, eroded	2240.60	0.68
259C2	Assumption silt loam, 5 to 10 percent slopes, eroded	2078.49	0.63
45A	Denny silt loam, 0 to 2 percent slopes	1835.72	0.56
280C2	Fayette silt loam, 5 to 10 percent slopes, eroded	1489.94	0.45
618F	Senachwine silt loam, 18 to 35 percent slopes	1371.71	0.42

SSURGO Soil Series Code	SSURGO Soil Series Code Definition	Acres	Percent of Watershed
567C2	Elkhart silt loam, 5 to 10 percent slopes, eroded	1178.51	0.36
8F	Hickory silt loam, 18 to 35 percent slopes	1105.09	0.34
56C2	Dana silty clay loam, 5 to 10 percent slopes, eroded	1010.94	0.31
136A	Brooklyn silt loam, 0 to 2 percent slopes	679.02	0.21
259D2	Assumption silt loam, 10 to 18 percent slopes, eroded	638.71	0.19
128C2	Douglas silt loam, 5 to 10 percent slopes, eroded	533.05	0.16
280D2	Fayette silt loam, 10 to 18 percent slopes, eroded	448.10	0.14
148C2	Proctor silt loam, 5 to 10 percent slopes, eroded	425.93	0.13
36C2	Tama silt loam, 5 to 10 percent slopes, eroded	346.79	0.11
119D3	Elco silty clay loam, 10 to 18 percent slopes, severely eroded	336.57	0.10
127C2	Harrison silt loam, 5 to 10 percent slopes, eroded	289.13	0.09
618G	Senachwine loam, 35 to 60 percent slopes	229.23	0.07
257A	Clarksdale silt loam, 0 to 2 percent slopes	215.77	0.07
7136A	Brooklyn silt loam, 0 to 2 percent slopes, rarely flooded	180.02	0.05
199C2	Plano silt loam, 5 to 10 percent slopes, eroded	161.37	0.05
234A	Sunbury silt loam, 0 to 2 percent slopes	153.27	0.05
348B	Wingate silt loam, 2 to 5 percent slopes	126.23	0.04
7037A	Worthen silt loam, 0 to 2 percent slopes, rarely flooded	126.20	0.04
567D2	Elkhart silt loam, 10 to 18 percent slopes, eroded	66.43	0.02
684C2	Broadwell silt loam, 5 to 10 percent slopes, eroded	62.12	0.02
280D3	Fayette silty clay loam, 10 to 18 percent slopes, severely eroded	60.75	0.02
630D3	Navlys silty clay loam, 10 to 18 percent slopes, severely eroded	51.62	0.02
279B	Rozetta silt loam, 2 to 5 percent slopes	4029.13	1.23
233B	Birkbeck silt loam, 2 to 5 percent slopes	3647.95	1.11
685B	Middletown silt loam, 2 to 5 percent slopes	3386.29	1.03
119C2	Elco silt loam, 5 to 10 percent slopes, eroded	2530.25	0.77
322C2	Russell silt loam, 5 to 10 percent slopes, eroded	1675.76	0.51
802B	Orthents, loamy, undulating	1282.56	0.39
802D	Orthents, loamy, hilly	758.15	0.23
134B	Camden silt loam, 2 to 5 percent slopes	672.37	0.20
242A	Kendall silt loam, 0 to 2 percent slopes	610.96	0.19
212C2	Thebes loam, 5 to 10 percent slopes, eroded	576.00	0.18
236A	Sabina silt loam, 0 to 2 percent slopes	572.56	0.17
119D2	Elco silt loam, 10 to 18 percent slopes, eroded	556.01	0.17
257A	Clarksdale silt loam, 0 to 2 percent slopes	450.90	0.14
685C2	Middletown silt loam, 5 to 10 percent slopes, eroded	310.94	0.09
7802B	Orthents, loamy, undulating, rarely flooded	281.65	0.09
7242A	Kendall silt loam, 0 to 2 percent slopes, rarely flooded	265.56	0.08
630C2	Navlys silt loam, 5 to 10 percent slopes, eroded	237.50	0.07
134C2	Camden silt loam, 5 to 10 percent slopes, eroded	137.31	0.04
291B	Xenia silt loam, 2 to 5 percent slopes	128.76	0.04

SSURGO Soil Series Code	SSURGO Soil Series Code Definition	Acres	Percent of Watershed
119D	Elco silt loam, 10 to 18 percent slopes	69.11	0.02
630D2	Navlys silt loam, 10 to 18 percent slopes, eroded	47.83	0.01
134A	Camden silt loam, 0 to 2 percent slopes	40.77	0.01
7134B	Camden silt loam, 2 to 5 percent slopes, rarely flooded	31.26	0.01
132A	Starks silt loam, 0 to 2 percent slopes	4.85	0.00
3333A	Wakeland silt loam, 0 to 2 percent slopes, frequently flooded	2.29	0.00
17A	Keomah silt loam, 0 to 2 percent slopes	1944.70	0.59
801C	Orthents, silty, rolling	276.17	0.08
7075B	Drury silt loam, 2 to 5 percent slopes, rarely flooded	227.95	0.07
W	Water	1931.19	0.59
533	Urban land	1781.82	0.54
862	Pits, Sand	375.21	0.11
865	Pits, gravel	145.01	0.04
7865	Pits, gravel, rarely flooded	88.33	0.03
M-W	Miscellaneous water	57.57	0.02
533	Urban land	11.78	0.00
MW	Miscellaneous water	2.47	0.00
830	Landfills	2.38	0.00
		328,310	100

Appendix C

Historical Water Quality Data

Segment	Station	Date	Time	Parameter	Result	Units
Sangamon River	E-05	1999-05-12		Coliform, Fecal	50	cfu/100ml
Sangamon River	E-05	1999-06-16		Coliform, Fecal	600	cfu/100ml
Sangamon River	E-05	1999-09-09		Coliform, Fecal	90	cfu/100ml
Sangamon River	E-05	1999-10-19		Coliform, Fecal	160	cfu/100ml
Sangamon River	E-05	2000-05-02	10:15	Coliform, Fecal	1220	cfu/100ml
Sangamon River	E-05	2000-06-05	12:00	Coliform, Fecal	5000	cfu/100ml
Sangamon River	E-05	2000-06-08	11:00	Coliform, Fecal	433	cfu/100ml
Sangamon River	E-05	2000-06-13	10:20	Coliform, Fecal	1233	cfu/100ml
Sangamon River	E-05	2000-06-20	11:00	Coliform, Fecal	693	cfu/100ml
Sangamon River	E-05	2000-06-27	11:10	Coliform, Fecal	3267	cfu/100ml
Sangamon River	E-05	2000-06-28	10:45	Coliform, Fecal	1600	cfu/100ml
Sangamon River	E-05	2000-07-05	11:30	Coliform, Fecal	11800	cfu/100ml
Sangamon River	E-05	2000-07-10	10:50	Coliform, Fecal	320	cfu/100ml
Sangamon River	E-05	2000-07-12	11:00	Coliform, Fecal	930	cfu/100ml
Sangamon River	E-05	2000-07-18	11:00	Coliform, Fecal	1350	cfu/100ml
Sangamon River	E-05	2000-07-24	10:45	Coliform, Fecal	333	cfu/100ml
Sangamon River	E-05	2000-08-07	11:30	Coliform, Fecal	3300	cfu/100ml
Sangamon River	E-05	2000-09-05	11:40	Coliform, Fecal	40	cfu/100ml
Sangamon River	E-05	2000-09-07	11:30	Coliform, Fecal	100	cfu/100ml
Sangamon River	E-05	2000-09-12	11:00	Coliform, Fecal	640	cfu/100ml
Sangamon River	E-05	2000-09-18	10:50	Coliform, Fecal	580	cfu/100ml
Sangamon River	E-05	2000-09-21	11:45	Coliform, Fecal	1117	cfu/100ml
Sangamon River	E-05	2000-09-26	11:50	Coliform, Fecal	1807	cfu/100ml
Sangamon River	E-05	2000-10-10	11:30	Coliform, Fecal	420	cfu/100ml
Sangamon River	E-05	2001-05-22		Coliform, Fecal	450	cfu/100ml
Sangamon River	E-05	2001-06-28		Coliform, Fecal	140	cfu/100ml
Sangamon River	E-05	2001-08-08		Coliform, Fecal	320	cfu/100ml
Sangamon River	E-05	2001-10-18	11:30	Coliform, Fecal	1600	cfu/100ml
Sangamon River	E-05	2002-06-11		Coliform, Fecal	380	cfu/100ml
Sangamon River	E-05	2002-07-16		Coliform, Fecal	80	cfu/100ml
Sangamon River	E-05	2002-08-21		Coliform, Fecal	650	cfu/100ml
Sangamon River	E-05	2002-10-03		Coliform, Fecal	75	cfu/100ml
Sangamon River	E-05	2003-06-16	12:45	Coliform, Fecal	220	cfu/100ml
Sangamon River	E-05	2003-07-24	12:00	Coliform, Fecal	205	cfu/100ml
Sangamon River	E-05	2003-09-03	12:15	Coliform, Fecal	5800	cfu/100ml
Sangamon River	E-05	2003-10-21	12:00	Coliform, Fecal	30	cfu/100ml
Sangamon River	E-05	2003-11-25	12:30	Coliform, Fecal	280	cfu/100ml
Sangamon River	E-05	2004-01-14	9:45	Coliform, Fecal	820	cfu/100ml
Sangamon River	E-05	2004-03-08	9:45	Coliform, Fecal	240	cfu/100ml
Sangamon River	E-05	2004-04-06	11:45	Coliform, Fecal	40	cfu/100ml
Sangamon River	E-05	2004-05-13	9:00	Coliform, Fecal	185	cfu/100ml
Sangamon River	E-05	2004-06-14	8:15	Coliform, Fecal	310	cfu/100ml
Sangamon River	E-05	2004-08-04	9:15	Coliform, Fecal	160	cfu/100ml
Sangamon River	E-05	2004-09-13	9:00	Coliform, Fecal	250	cfu/100ml
Sangamon River	E-05	2004-10-26	9:15	Coliform, Fecal	650	cfu/100ml
Sangamon River	E-05	2004-12-14	10:00	Coliform, Fecal	480	cfu/100ml

Segment	Station	Date	Time	Parameter	Result	Units
Sangamon River	E-05	2005-05-23	9:45	Coliform, Fecal	150	cfu/100ml
Sangamon River	E-05	2005-06-23	10:00	Coliform, Fecal	160	cfu/100ml
Sangamon River	E-05	2005-08-02	8:45	Coliform, Fecal	320	cfu/100ml
Sangamon River	E-05	2005-09-21	9:15	Coliform, Fecal	580	cfu/100ml
Sangamon River	E-05	2005-10-31	10:45	Coliform, Fecal	320	cfu/100ml
Sangamon River	E-05	2006-05-08	11:00	Coliform, Fecal	230	cfu/100ml
Sangamon River	E-05	2006-06-14	10:45	Coliform, Fecal	940	cfu/100ml
Sangamon River	E-05	2006-08-21	10:45	Coliform, Fecal	880	cfu/100ml
Sangamon River	E-05	2006-09-20	10:00	Coliform, Fecal	2280	cfu/100ml
Sangamon River	E-06	1999-05-12		Coliform, Fecal	20	cfu/100ml
Sangamon River	E-06	1999-06-16		Coliform, Fecal	80	cfu/100ml
Sangamon River	E-06	1999-09-09		Coliform, Fecal	10	cfu/100ml
Sangamon River	E-06	1999-10-19		Coliform, Fecal	20	cfu/100ml
Sangamon River	E-06	2000-05-02	8:00	Coliform, Fecal	10	cfu/100ml
Sangamon River	E-06	2000-06-28	8:50	Coliform, Fecal	140	cfu/100ml
Sangamon River	E-06	2000-08-07	9:00	Coliform, Fecal	220	cfu/100ml
Sangamon River	E-06	2000-09-07	9:00	Coliform, Fecal	40	cfu/100ml
Sangamon River	E-06	2000-10-10	9:00	Coliform, Fecal	40	cfu/100ml
Sangamon River	E-06	2001-05-22		Coliform, Fecal	20	cfu/100ml
Sangamon River	E-06	2001-06-28		Coliform, Fecal	60	cfu/100ml
Sangamon River	E-06	2001-08-08		Coliform, Fecal	10	cfu/100ml
Sangamon River	E-06	2001-10-18	9:00	Coliform, Fecal	20	cfu/100ml
Sangamon River	E-06	2002-06-11		Coliform, Fecal	20	cfu/100ml
Sangamon River	E-06	2002-07-16		Coliform, Fecal	300	cfu/100ml
Sangamon River	E-06	2002-08-21		Coliform, Fecal	320	cfu/100ml
Sangamon River	E-06	2002-10-03		Coliform, Fecal	70	cfu/100ml
Sangamon River	E-06	2003-06-16	10:00	Coliform, Fecal	50	cfu/100ml
Sangamon River	E-06	2003-07-24	9:30	Coliform, Fecal	10	cfu/100ml
Sangamon River	E-06	2003-09-03	9:00	Coliform, Fecal	120	cfu/100ml
Sangamon River	E-06	2003-10-21	9:30	Coliform, Fecal	30	cfu/100ml
Sangamon River	E-06	2003-11-25	9:45	Coliform, Fecal	80	cfu/100ml
Sangamon River	E-06	2004-01-14	10:45	Coliform, Fecal	50	cfu/100ml
Sangamon River	E-06	2004-03-08	11:00	Coliform, Fecal	10	cfu/100ml
Sangamon River	E-06	2004-04-06	10:00	Coliform, Fecal	120	cfu/100ml
Sangamon River	E-06	2004-05-13	10:15	Coliform, Fecal	70	cfu/100ml
Sangamon River	E-06	2004-06-14	9:15	Coliform, Fecal	60	cfu/100ml
Sangamon River	E-06	2004-08-04	10:45	Coliform, Fecal	90	cfu/100ml
Sangamon River	E-06	2004-09-13	10:00	Coliform, Fecal	160	cfu/100ml
Sangamon River	E-06	2004-10-26	10:15	Coliform, Fecal	85	cfu/100ml
Sangamon River	E-06	2004-12-14	11:00	Coliform, Fecal	220	cfu/100ml
Sangamon River	E-06	2005-05-23	10:45	Coliform, Fecal	1	cfu/100ml
Sangamon River	E-06	2005-06-23	11:00	Coliform, Fecal	2	cfu/100ml
Sangamon River	E-06	2005-08-02	9:30	Coliform, Fecal	49	cfu/100ml
Sangamon River	E-06	2005-09-21	10:15	Coliform, Fecal	544	cfu/100ml
Sangamon River	E-06	2005-10-31	12:15	Coliform, Fecal	331	cfu/100ml
Sangamon River	E-06	2006-05-08	12:00	Coliform, Fecal	300	cfu/100ml

Segment	Station	Date	Time	Parameter	Result	Units
Sangamon River	E-06	2006-06-14	11:45	Coliform, Fecal	220	cfu/100ml
Sangamon River	E-06	2006-08-21	11:45	Coliform, Fecal	106	cfu/100ml
Sangamon River	E-06	2006-09-20	11:15	Coliform, Fecal	206	cfu/100ml
Sangamon River	E-06	2007-05-16	12:00	Coliform, Fecal	5	cfu/100ml
Sangamon River	E-06	2007-06-20	11:30	Coliform, Fecal	47	cfu/100ml
Sangamon River	E-06	2007-08-30	11:15	Coliform, Fecal	160	cfu/100ml
Sangamon River	E-06	2007-09-19	12:00	Coliform, Fecal	54	cfu/100ml
Sangamon River	E-06	2008-09-17	12:00	Coliform, Fecal	290	cfu/100ml
Sangamon River	E-06	2009-05-13	13:00	Coliform, Fecal	4	cfu/100ml
Sangamon River	E-06	2009-06-18	7:15	Coliform, Fecal	30	cfu/100ml
Sangamon River	E-06	2009-07-21	13:40	Coliform, Fecal	45	cfu/100ml
Sangamon River	E-06	2009-08-27	10:45	Coliform, Fecal	63	cfu/100ml
Sangamon River	E-06	2009-10-06	9:20	Coliform, Fecal	5	cfu/100ml
Sangamon River	E-06	2010-06-14	13:30	Coliform, Fecal	2100	cfu/100ml
Sangamon River	E-06	2010-07-20	8:30	Coliform, Fecal	400	cfu/100ml
Sangamon River	E-06	2010-09-07	8:40	Coliform, Fecal	20000	cfu/100ml
Sangamon River	E-06	2011-05-10	8:23	Coliform, Fecal	5	cfu/100ml
Sangamon River	E-06	2011-06-21	9:33	Coliform, Fecal	140	cfu/100ml
Sangamon River	E-06	2011-07-26	14:57	Coliform, Fecal	40	cfu/100ml
Sangamon River	E-06	2011-09-15	10:10	Coliform, Fecal	90	cfu/100ml
Sangamon River	E-06	2012-05-08	8:31	Coliform, Fecal	27	cfu/100ml
Sangamon River	E-06	2012-06-12	10:56	Coliform, Fecal	19	cfu/100ml
Sangamon River	E-06	2012-07-24	9:12	Coliform, Fecal	4	cfu/100ml
Sangamon River	E-06	2012-09-18	8:03	Coliform, Fecal	10	cfu/100ml
Sangamon River	E-06	2012-10-16	8:27	Coliform, Fecal	2.5	cfu/100ml
Sangamon River	E-06	2013-05-14	6:34	Coliform, Fecal	60	cfu/100ml
Sangamon River	E-06	2013-06-11	6:40	Coliform, Fecal	5	cfu/100ml
Sangamon River	E-06	2013-07-23	6:36	Coliform, Fecal	5	cfu/100ml
Sangamon River	E-06	2013-08-27	6:38	Coliform, Fecal	9.8	cfu/100ml
Sangamon River	E-06	2013-10-08	7:32	Coliform, Fecal	120	cfu/100ml
Sangamon River	E-09	1999-05-12		Coliform, Fecal	30	cfu/100ml
Sangamon River	E-09	1999-06-16		Coliform, Fecal	220	cfu/100ml
Sangamon River	E-09	1999-09-09		Coliform, Fecal	40	cfu/100ml
Sangamon River	E-09	1999-10-19		Coliform, Fecal	350	cfu/100ml
Sangamon River	E-09	2000-05-02	9:00	Coliform, Fecal	10	cfu/100ml
Sangamon River	E-09	2000-06-28	9:45	Coliform, Fecal	4200	cfu/100ml
Sangamon River	E-09	2000-08-07	10:00	Coliform, Fecal	15000	cfu/100ml
Sangamon River	E-09	2000-09-07	10:00	Coliform, Fecal	160	cfu/100ml
Sangamon River	E-09	2000-10-10	10:30	Coliform, Fecal	820	cfu/100ml
Sangamon River	E-09	2001-05-22		Coliform, Fecal	200	cfu/100ml
Sangamon River	E-09	2001-06-28		Coliform, Fecal	220	cfu/100ml
Sangamon River	E-09	2001-08-08		Coliform, Fecal	540	cfu/100ml
Sangamon River	E-09	2001-10-18	10:15	Coliform, Fecal	17000	cfu/100ml
Sangamon River	E-09	2002-06-11		Coliform, Fecal	220	cfu/100ml
Sangamon River	E-09	2002-07-16		Coliform, Fecal	50	cfu/100ml
Sangamon River	E-09	2002-08-21		Coliform, Fecal	5500	cfu/100ml

Segment	Station	Date	Time	Parameter	Result	Units
Sangamon River	E-09	2002-10-03		Coliform, Fecal	1100	cfu/100ml
Sangamon River	E-09	2003-06-16	11:15	Coliform, Fecal	100	cfu/100ml
Sangamon River	E-09	2003-07-24	10:30	Coliform, Fecal	170	cfu/100ml
Sangamon River	E-09	2003-09-03	10:30	Coliform, Fecal	1200	cfu/100ml
Sangamon River	E-09	2003-10-21	10:45	Coliform, Fecal	1000	cfu/100ml
Sangamon River	E-09	2003-11-25	10:30	Coliform, Fecal	50	cfu/100ml
Sangamon River	E-09	2004-01-14	11:15	Coliform, Fecal	25	cfu/100ml
Sangamon River	E-09	2004-03-08	11:03	Coliform, Fecal	20	cfu/100ml
Sangamon River	E-09	2004-04-06	10:30	Coliform, Fecal	20	cfu/100ml
Sangamon River	E-09	2004-05-13	11:00	Coliform, Fecal	40	cfu/100ml
Sangamon River	E-09	2004-06-14	9:45	Coliform, Fecal	110	cfu/100ml
Sangamon River	E-09	2004-08-04	10:00	Coliform, Fecal	200	cfu/100ml
Sangamon River	E-09	2004-09-13	10:30	Coliform, Fecal	50	cfu/100ml
Sangamon River	E-09	2004-10-26	11:00	Coliform, Fecal	190	cfu/100ml
Sangamon River	E-09	2004-12-14	11:45	Coliform, Fecal	200	cfu/100ml
Sangamon River	E-09	2005-05-23	11:15	Coliform, Fecal	40	cfu/100ml
Sangamon River	E-09	2005-06-23	11:45	Coliform, Fecal	100	cfu/100ml
Sangamon River	E-09	2005-08-02	10:00	Coliform, Fecal	340	cfu/100ml
Sangamon River	E-09	2005-09-21	11:00	Coliform, Fecal	43900	cfu/100ml
Sangamon River	E-09	2005-10-31	13:15	Coliform, Fecal	1430	cfu/100ml
Sangamon River	E-09	2006-05-08	12:45	Coliform, Fecal	172	cfu/100ml
Sangamon River	E-09	2006-06-14	12:15	Coliform, Fecal	1120	cfu/100ml
Sangamon River	E-09	2006-08-21	12:15	Coliform, Fecal	1410	cfu/100ml
Sangamon River	E-09	2006-09-20	11:45	Coliform, Fecal	920	cfu/100ml
Sangamon River	E-16	1999-05-11		Coliform, Fecal	30	cfu/100ml
Sangamon River	E-16	1999-06-15		Coliform, Fecal	2200	cfu/100ml
Sangamon River	E-16	1999-09-09		Coliform, Fecal	80	cfu/100ml
Sangamon River	E-16	1999-10-20		Coliform, Fecal	200	cfu/100ml
Sangamon River	E-16	2000-05-04	11:15	Coliform, Fecal	220	cfu/100ml
Sangamon River	E-16	2000-07-11	11:10	Coliform, Fecal	420	cfu/100ml
Sangamon River	E-16	2000-08-08	12:00	Coliform, Fecal	500	cfu/100ml
Sangamon River	E-16	2000-09-14	9:00	Coliform, Fecal	520	cfu/100ml
Sangamon River	E-16	2000-10-04	9:00	Coliform, Fecal	220	cfu/100ml
Sangamon River	E-16	2001-05-17		Coliform, Fecal	210	cfu/100ml
Sangamon River	E-16	2001-06-21		Coliform, Fecal	420	cfu/100ml
Sangamon River	E-16	2001-08-06		Coliform, Fecal	220	cfu/100ml
Sangamon River	E-16	2001-10-15	9:00	Coliform, Fecal	1020	cfu/100ml
Sangamon River	E-16	2002-06-06		Coliform, Fecal	1300	cfu/100ml
Sangamon River	E-16	2002-07-15		Coliform, Fecal	125	cfu/100ml
Sangamon River	E-16	2002-08-20		Coliform, Fecal	800	cfu/100ml
Sangamon River	E-16	2002-10-02		Coliform, Fecal	145	cfu/100ml
Sangamon River	E-16	2003-06-12	9:00	Coliform, Fecal	820	cfu/100ml
Sangamon River	E-16	2003-08-27	9:00	Coliform, Fecal	1	cfu/100ml
Sangamon River	E-16	2003-10-20	9:00	Coliform, Fecal	90	cfu/100ml
Sangamon River	E-16	2003-11-24	9:00	Coliform, Fecal	2600	cfu/100ml
Sangamon River	E-16	2004-01-15	9:00	Coliform, Fecal	380	cfu/100ml

Segment	Station	Date	Time	Parameter	Result	Units
Sangamon River	E-16	2004-03-09	8:45	Coliform, Fecal	800	cfu/100ml
Sangamon River	E-16	2004-04-07	9:15	Coliform, Fecal	90	cfu/100ml
Sangamon River	E-16	2004-05-17	9:15	Coliform, Fecal	700	cfu/100ml
Sangamon River	E-16	2004-06-14	7:15	Coliform, Fecal	350	cfu/100ml
Sangamon River	E-16	2004-08-05	8:30	Coliform, Fecal	270	cfu/100ml
Sangamon River	E-16	2004-09-13	8:00	Coliform, Fecal	150	cfu/100ml
Sangamon River	E-16	2004-10-27	9:00	Coliform, Fecal	950	cfu/100ml
Sangamon River	E-16	2004-12-14	9:00	Coliform, Fecal	240	cfu/100ml
Sangamon River	E-16	2005-05-23	9:00	Coliform, Fecal	160	cfu/100ml
Sangamon River	E-16	2005-06-23	9:00	Coliform, Fecal	170	cfu/100ml
Sangamon River	E-16	2005-08-04	9:15	Coliform, Fecal	42	cfu/100ml
Sangamon River	E-16	2005-09-21	8:00	Coliform, Fecal	240	cfu/100ml
Sangamon River	E-16	2005-10-31	9:30	Coliform, Fecal	160	cfu/100ml
Sangamon River	E-16	2006-05-08	10:00	Coliform, Fecal	520	cfu/100ml
Sangamon River	E-16	2006-06-14	9:45	Coliform, Fecal	820	cfu/100ml
Sangamon River	E-16	2006-08-21	9:30	Coliform, Fecal	680	cfu/100ml
Sangamon River	E-16	2006-09-20	8:45	Coliform, Fecal	810	cfu/100ml
Sangamon River	E-05	2015-05-13		Coliform, Fecal	310	cfu/100ml
Sangamon River	E-05	2015-05-28	11:45	Coliform, Fecal	183	cfu/100ml
Sangamon River	E-05	2015-06-02	11:30	Coliform, Fecal	165	cfu/100ml
Sangamon River	E-05	2015-06-11	10:15	Coliform, Fecal	180	cfu/100ml
Sangamon River	E-05	2015-06-18	11:15	Coliform, Fecal	340	cfu/100ml
Sangamon River	E-05	2015-06-25	11:00	Coliform, Fecal	2400	cfu/100ml
Sangamon River	E-06	2015-05-04	7:00	Coliform, Fecal	31	cfu/100ml
Sangamon River	E-06	2015-05-13	10:45	Coliform, Fecal	269	cfu/100ml
Sangamon River	E-06	2015-05-28	10:30	Coliform, Fecal	1120	cfu/100ml
Sangamon River	E-06	2015-06-02	10:30	Coliform, Fecal	658	cfu/100ml
Sangamon River	E-06	2015-06-11	9:30	Coliform, Fecal	20	cfu/100ml
Sangamon River	E-06	2015-06-17	13:00	Coliform, Fecal	58	cfu/100ml
Sangamon River	E-06	2015-06-18	10:15	Coliform, Fecal	21	cfu/100ml
Sangamon River	E-06	2015-06-25	10:00	Coliform, Fecal	4650	cfu/100ml
Sangamon River	E-09	2015-05-13	11:00	Coliform, Fecal	99	cfu/100ml
Sangamon River	E-09	2015-05-28	11:15	Coliform, Fecal	56	cfu/100ml
Sangamon River	E-09	2015-06-02	11:00	Coliform, Fecal	38	cfu/100ml
Sangamon River	E-09	2015-06-11	9:45	Coliform, Fecal	50	cfu/100ml
Sangamon River	E-09	2015-06-18	10:45	Coliform, Fecal	92	cfu/100ml
Sangamon River	E-09	2015-06-25	10:30	Coliform, Fecal	2350	cfu/100ml
Sangamon River	E-16	2015-05-13	12:30	Coliform, Fecal	445	cfu/100ml
Sangamon River	E-16	2015-05-28	12:30	Coliform, Fecal	228	cfu/100ml
Sangamon River	E-16	2015-06-02	12:15	Coliform, Fecal	250	cfu/100ml
Sangamon River	E-16	2015-06-11	11:00	Coliform, Fecal	260	cfu/100ml
Sangamon River	E-16	2015-06-25	11:30	Coliform, Fecal	6050	cfu/100ml
Buckhart Creek	EZM-01	2003-06-09	12:40	Dissolved oxygen (DO)	7.87	mg/l
Buckhart Creek	EZM-01	2003-07-30	12:15	Dissolved oxygen (DO)	5.6	mg/l
Buckhart Creek	EZM-01	2003-10-15	13:30	Dissolved oxygen (DO)	3.2	mg/l
Buckhart Creek	EZM-07	2003-08-13	16:15	Dissolved oxygen (DO)	10.3	mg/l

Segment	Station	Date	Time	Parameter	Result	Units
Buckhart Creek	EZM-01	2003-06-09	12:40	Oxygen, Dissolved	7.87	mg/l
Buckhart Creek	EZM-01	2003-07-30	12:15	Oxygen, Dissolved	5.6	mg/l
Buckhart Creek	EZM-01	2003-10-15	13:30	Oxygen, Dissolved	3.2	mg/l
Buckhart Creek	EZM-07	2003-08-13	15:15	Oxygen, Dissolved	10.3	mg/l
Buckhart Creek	EZM-07	2013-05-20	12:00	Oxygen, Dissolved	7.6	mg/l
Buckhart Creek	EZM-07	2013-07-25	13:00	Oxygen, Dissolved	7.34	mg/l
Buckhart Creek	EZM-07	2013-08-06	10:30	Oxygen, Dissolved	6.56	mg/l
Buckhart Creek	EZM-07	2013-08-29	12:00	Oxygen, Dissolved	5.47	mg/l
Buckhart Creek	EZM-01	2003-06-09	12:40	Solids, Total Suspended (TSS)	56	mg/l
Buckhart Creek	EZM-01	2003-07-30	12:15	Solids, Total Suspended (TSS)	24	mg/l
Buckhart Creek	EZM-07	2003-08-13	15:15	Solids, Total Suspended (TSS)	13	mg/l
Buckhart Creek	EZM-01	2003-10-15	13:30	Solids, Total Suspended (TSS)	30	mg/l
Buckhart Creek	EZM-07	2013-05-20	12:00	Solids, Total Suspended (TSS)	6	mg/l
Buckhart Creek	EZM-07	2013-07-25	13:00	Solids, Total Suspended (TSS)	35	mg/l
Buckhart Creek	EZM-07	2013-08-29	12:00	Solids, Total Suspended (TSS)	39	mg/l
Long Point Slough	ERA-01	2003-06-09	11:30	Solids, Total Suspended (TSS)	43	mg/l
Long Point Slough	ERA-01	2003-07-17	12:15	Solids, Total Suspended (TSS)	64	mg/l
Long Point Slough	ERA-01	2003-10-16	11:15	Solids, Total Suspended (TSS)	25	mg/l

Appendix D

Load Duration Curve Calculations

Middle Sangamon River (E-05)
Fecal Coliform

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/5/2008	19200	1.07	20603.98	1	0.0209%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	100829593.6
5573540	6/4/2008	16900	1.07	18142.00	2	0.0418%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88781409.16
5573540	6/7/2008	15300	1.07	16429.31	3	0.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	80400063.45
5573540	5/12/2002	14100	1.07	15144.80	4	0.0836%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	74114054.16
5573540	6/6/2008	13300	1.07	14288.46	5	0.1045%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	69923381.3
5573540	6/8/2008	12700	1.07	13646.20	6	0.1254%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	66780376.66
5573540	5/17/1990	12100	1.07	13003.95	7	0.1463%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	63637372.02
5573540	9/15/2008	11900	1.07	12789.86	8	0.1672%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	62589703.8
5573540	5/19/1995	11100	1.07	11933.52	9	0.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58399030.94
5573540	9/14/2008	11000	1.07	11826.48	10	0.2090%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	57875196.84
5573540	5/16/1990	10100	1.07	10863.10	11	0.2299%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53160689.87
5573540	5/13/2002	9900	1.07	10649.01	12	0.2508%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	52113021.66
5573540	6/23/2010	9240	1.07	9942.53	13	0.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48655716.55
5573540	6/22/2010	9050	1.07	9739.15	14	0.2926%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	47660431.74
5573540	5/18/1995	9040	1.07	9728.44	15	0.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	47608048.33
5573540	5/17/2009	8940	1.07	9621.40	16	0.3344%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	47084214.23
5573540	6/9/2008	8800	1.07	9471.54	17	0.3553%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	46350846.48
5573540	9/16/2008	8770	1.07	9439.43	18	0.3762%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	46193696.24
5573540	5/20/1995	8420	1.07	9064.78	19	0.3971%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	44360276.87
5573540	6/3/2008	8330	1.07	8968.44	20	0.4180%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	43888826.17
5573540	9/17/2008	8260	1.07	8893.51	21	0.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	43522142.3
5573540	6/19/1998	8110	1.07	8732.95	22	0.4598%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42736391.14
5573540	5/9/1996	8060	1.07	8679.43	23	0.4807%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42474474.08
5573540	5/16/2009	7760	1.07	8358.30	24	0.5016%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40902971.76
5573540	6/16/1998	7760	1.07	8358.30	24	0.5016%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40902971.76
5573540	10/31/2009	7700	1.07	8294.07	26	0.5434%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40588671.3
5573540	9/18/2008	7690	1.07	8283.37	27	0.5643%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40536287.89
5573540	5/4/1998	7680	1.07	8272.66	28	0.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40483904.47
5573540	5/18/1990	7670	1.07	8261.96	29	0.6061%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40431521.06
5573540	7/16/2014	7670	1.07	8261.96	29	0.6061%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40431521.06
5573540	6/20/1998	7570	1.07	8154.92	31	0.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39907686.96
5573540	5/14/2009	7510	1.07	8090.69	32	0.6688%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39593386.49
5573540	5/18/2009	7400	1.07	7972.94	33	0.6897%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39017168.97
5573540	6/10/2008	7310	1.07	7876.61	34	0.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38545718.28
5573540	6/21/2010	7190	1.07	7748.16	35	0.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37917117.35
5573540	5/30/2011	7030	1.07	7576.89	36	0.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37078982.78
5573540	7/17/2014	7010	1.07	7555.48	37	0.7732%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36974215.96
5573540	5/14/2002	6800	1.07	7330.69	38	0.7941%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35874164.33
5573540	5/5/1998	6740	1.07	7266.46	39	0.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35559863.87
5573540	6/23/1998	6710	1.07	7234.35	40	0.8359%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35402713.63
5573540	5/8/1996	6620	1.07	7138.01	41	0.8568%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34931262.94
5573540	5/31/2011	6600	1.07	7116.60	42	0.8777%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34826496.12
5573540	6/17/1998	6560	1.07	7073.79	43	0.8986%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34616962.47
5573540	5/17/1995	6250	1.07	6741.95	44	0.9195%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32993076.74
5573540	5/29/2011	6230	1.07	6720.55	45	0.9404%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32888309.92
5573540	7/28/2006	6150	1.07	6634.91	46	0.9613%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32469242.63

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/21/1995	6130	1.07	6613.50	47	0.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32364475.81
5573540	6/24/2010	6130	1.07	6613.50	47	0.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32364475.81
5573540	9/19/2008	6130	1.07	6613.50	47	0.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32364475.81
5573540	5/14/1996	6120	1.07	6602.80	50	1.0449%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32312092.4
5573540	5/11/1996	6080	1.07	6559.98	51	1.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32102558.76
5573540	5/13/1996	6070	1.07	6549.28	52	1.0867%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32050175.35
5573540	5/19/2009	6060	1.07	6538.57	53	1.1076%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31997791.94
5573540	6/21/1998	6060	1.07	6538.57	53	1.1076%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31997791.94
5573540	7/15/2014	6030	1.07	6506.46	55	1.1494%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31840641.7
5573540	5/16/2002	6020	1.07	6495.76	56	1.1703%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31788258.29
5573540	6/16/2004	5960	1.07	6431.53	57	1.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31473957.83
5573540	5/26/2011	5950	1.07	6420.83	58	1.2121%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31421574.42
5573540	5/15/2002	5940	1.07	6410.12	59	1.2330%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31369191.01
5573540	6/18/2010	5930	1.07	6399.42	60	1.2539%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31316807.6
5573540	5/12/1996	5910	1.07	6378.01	61	1.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31212040.78
5573540	5/9/1998	5900	1.07	6367.31	62	1.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31159657.37
5573540	6/20/2010	5890	1.07	6356.60	63	1.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31107273.95
5573540	6/11/2008	5870	1.07	6335.19	64	1.3375%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31002507.13
5573540	5/27/1996	5800	1.07	6260.26	65	1.3584%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30635823.26
5573540	5/8/1998	5800	1.07	6260.26	65	1.3584%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30635823.26
5573540	5/24/1995	5790	1.07	6249.56	67	1.4002%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30583439.85
5573540	5/25/1995	5780	1.07	6238.85	68	1.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30531056.44
5573540	5/20/2009	5750	1.07	6206.74	69	1.4420%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30373906.2
5573540	6/14/2015	5710	1.07	6163.92	70	1.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30164372.56
5573540	7/13/2015	5690	1.07	6142.52	71	1.4838%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30059605.74
5573540	5/29/1995	5660	1.07	6110.40	72	1.5047%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29902455.51
5573540	6/17/2010	5620	1.07	6067.59	73	1.5256%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29692921.86
5573540	5/17/2002	5580	1.07	6024.77	74	1.5465%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29483388.22
5573540	6/28/2013	5570	1.07	6014.06	75	1.5674%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29431004.81
5573540	7/12/2015	5570	1.07	6014.06	75	1.5674%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29431004.81
5573540	10/21/1993	5570	1.07	6014.06	75	1.5674%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29431004.81
5573540	7/26/1992	5560	1.07	6003.36	78	1.6301%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29378621.4
5573540	10/30/2009	5540	1.07	5981.95	79	1.6510%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29273854.58
5573540	7/12/2008	5530	1.07	5971.25	80	1.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29221471.17
5573540	7/18/2014	5500	1.07	5939.13	81	1.6928%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29064320.94
5573540	6/29/2013	5490	1.07	5928.43	82	1.7137%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29011937.53
5573540	5/26/1995	5470	1.07	5907.02	83	1.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28907170.7
5573540	6/18/1998	5460	1.07	5896.32	84	1.7555%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28854787.29
5573540	5/28/1995	5450	1.07	5885.61	85	1.7764%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28802403.88
5573540	6/19/2010	5420	1.07	5853.50	86	1.7973%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28645253.65
5573540	7/14/2015	5380	1.07	5810.68	87	1.8182%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28435720.01
5573540	5/28/2011	5240	1.07	5660.82	88	1.8391%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27702352.26
5573540	5/10/1996	5230	1.07	5650.12	89	1.8600%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27649968.85
5573540	6/13/2015	5230	1.07	5650.12	89	1.8600%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27649968.85
5573540	5/30/1995	5190	1.07	5607.30	91	1.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27440435.2
5573540	5/27/1995	5170	1.07	5585.89	92	1.9227%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27335668.38

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/16/2010	5060	1.07	5468.15	93	1.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26759450.86
5573540	5/3/1998	5050	1.07	5457.44	94	1.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26707067.45
5573540	7/29/2006	5050	1.07	5457.44	94	1.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26707067.45
5573540	7/15/2008	4970	1.07	5371.81	96	2.0063%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26288000.17
5573540	5/1/2009	4930	1.07	5328.99	97	2.0272%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26078466.52
5573540	5/22/1995	4910	1.07	5307.58	98	2.0481%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25973699.7
5573540	6/15/1998	4910	1.07	5307.58	98	2.0481%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25973699.7
5573540	6/22/1990	4880	1.07	5275.47	100	2.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25816549.47
5573540	6/6/2001	4880	1.07	5275.47	100	2.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25816549.47
5573540	6/21/1990	4860	1.07	5254.06	102	2.1317%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25711782.65
5573540	6/20/1990	4830	1.07	5221.95	103	2.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25554632.42
5573540	10/20/1993	4810	1.07	5200.54	104	2.1735%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25449865.6
5573540	5/11/1998	4770	1.07	5157.72	105	2.1944%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25240331.95
5573540	5/19/1990	4750	1.07	5136.32	106	2.2153%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25135565.13
5573540	9/20/2008	4740	1.07	5125.61	107	2.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25083181.72
5573540	6/20/2009	4730	1.07	5114.91	108	2.2571%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25030798.31
5573540	7/13/2008	4690	1.07	5072.09	109	2.2780%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24821264.67
5573540	5/7/2002	4670	1.07	5050.68	110	2.2989%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24716497.85
5573540	6/12/2008	4650	1.07	5029.27	111	2.3197%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24611731.02
5573540	7/27/1992	4650	1.07	5029.27	111	2.3197%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24611731.02
5573540	6/14/2010	4630	1.07	5007.86	113	2.3615%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24506964.2
5573540	5/1/2011	4620	1.07	4997.16	114	2.3824%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24454580.79
5573540	10/23/1993	4620	1.07	4997.16	114	2.3824%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24454580.79
5573540	7/6/1993	4590	1.07	4965.05	116	2.4242%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24297430.56
5573540	5/15/1996	4580	1.07	4954.34	117	2.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24245047.15
5573540	5/12/1998	4520	1.07	4890.12	118	2.4660%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23930746.68
5573540	6/17/2004	4520	1.07	4890.12	118	2.4660%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23930746.68
5573540	7/5/1993	4520	1.07	4890.12	118	2.4660%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23930746.68
5573540	5/2/2009	4500	1.07	4868.71	121	2.5287%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23825979.86
5573540	10/22/1993	4500	1.07	4868.71	121	2.5287%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23825979.86
5573540	5/7/1998	4490	1.07	4858.00	123	2.5705%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23773596.45
5573540	6/15/2015	4480	1.07	4847.30	124	2.5914%	Fecal_coliform	5000	cfu/100mL	200	283.2	593030326	23721213.04
5573540	5/10/1998	4470	1.07	4836.60	125	2.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23668829.63
5573540	6/24/1998	4450	1.07	4815.19	126	2.6332%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23564062.81
5573540	5/16/1995	4430	1.07	4793.78	127	2.6541%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23459295.99
5573540	5/6/1998	4420	1.07	4783.07	128	2.6750%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23406912.58
5573540	6/15/2004	4420	1.07	4783.07	128	2.6750%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23406912.58
5573540	5/27/2011	4410	1.07	4772.37	130	2.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23354529.17
5573540	5/31/1995	4400	1.07	4761.67	131	2.7377%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23302145.76
5573540	5/29/1996	4370	1.07	4729.55	132	2.7586%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23144995.52
5573540	6/1/2011	4360	1.07	4718.85	133	2.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23092612.11
5573540	5/23/1995	4350	1.07	4708.14	134	2.8004%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23040228.7
5573540	5/15/2009	4340	1.07	4697.44	135	2.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22987845.29
5573540	6/15/2010	4320	1.07	4676.03	136	2.8422%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22883078.47
5573540	6/23/1990	4300	1.07	4654.62	137	2.8631%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22778311.65
5573540	5/15/1995	4230	1.07	4579.69	138	2.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22411627.77

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/30/2015	4220	1.07	4568.99	139	2.9049%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22359244.36
5573540	6/18/2004	4200	1.07	4547.58	140	2.9258%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22254477.54
5573540	5/28/1996	4190	1.07	4536.88	141	2.9467%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22202094.13
5573540	6/24/1990	4140	1.07	4483.36	142	2.9676%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21940177.08
5573540	6/13/2008	4130	1.07	4472.65	143	2.9885%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21887793.67
5573540	6/2/2013	4110	1.07	4451.24	144	3.0094%	Fecal_coliform	320	cfu/100mL	200	283.2	34852842.95	21783026.85
5573540	7/15/2015	4110	1.07	4451.24	144	3.0094%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21783026.85
5573540	5/3/2009	4090	1.07	4429.83	146	3.0512%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21678260.02
5573540	5/9/2002	4030	1.07	4365.61	147	3.0721%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21363959.56
5573540	7/1/2015	4030	1.07	4365.61	147	3.0721%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21363959.56
5573540	6/22/1998	4010	1.07	4344.20	149	3.1139%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21259192.74
5573540	5/21/2009	3960	1.07	4290.68	150	3.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20997275.68
5573540	7/14/2008	3950	1.07	4279.97	151	3.1557%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20944892.27
5573540	10/29/2009	3940	1.07	4269.27	152	3.1766%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20892508.86
5573540	6/30/2013	3930	1.07	4258.57	153	3.1975%	Fecal_coliform	650	cfu/100mL	200	283.2	67730407.72	20840125.45
5573540	7/4/1993	3920	1.07	4247.86	154	3.2184%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20787742.04
5573540	6/25/2010	3910	1.07	4237.16	155	3.2393%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20735358.63
5573540	7/7/1993	3910	1.07	4237.16	155	3.2393%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20735358.63
5573540	7/19/2014	3900	1.07	4226.45	157	3.2811%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20682975.22
5573540	6/2/2011	3890	1.07	4215.75	158	3.3020%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20630591.81
5573540	7/11/2008	3870	1.07	4194.34	159	3.3229%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20525824.99
5573540	6/3/2013	3840	1.07	4162.23	160	3.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20368674.76
5573540	6/2/1996	3830	1.07	4151.52	161	3.3647%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20316291.34
5573540	6/16/2015	3810	1.07	4130.11	162	3.3856%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20211524.52
5573540	7/9/2015	3740	1.07	4055.18	163	3.4065%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19844840.65
5573540	5/18/2002	3720	1.07	4033.78	164	3.4274%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19740073.83
5573540	5/19/2002	3660	1.07	3969.55	165	3.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19425773.36
5573540	5/14/1995	3630	1.07	3937.44	166	3.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19268623.13
5573540	6/29/2015	3630	1.07	3937.44	166	3.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19268623.13
5573540	5/20/1990	3580	1.07	3883.92	168	3.5110%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19006706.08
5573540	6/7/2001	3530	1.07	3830.40	169	3.5319%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18744789.02
5573540	10/28/2009	3500	1.07	3798.28	170	3.5528%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18587638.79
5573540	6/4/1996	3490	1.07	3787.58	171	3.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18535255.38
5573540	6/19/2004	3490	1.07	3787.58	171	3.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18535255.38
5573540	6/25/1990	3480	1.07	3776.87	173	3.6155%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18482871.97
5573540	6/3/1996	3480	1.07	3776.87	173	3.6155%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18482871.97
5573540	9/21/2008	3480	1.07	3776.87	173	3.6155%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18482871.97
5573540	6/1/1996	3440	1.07	3734.06	176	3.6782%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18273338.33
5573540	5/11/1995	3420	1.07	3712.65	177	3.6991%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18168571.5
5573540	5/25/1998	3420	1.07	3712.65	177	3.6991%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18168571.5
5573540	5/10/2002	3420	1.07	3712.65	177	3.6991%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18168571.5
5573540	6/27/2015	3400	1.07	3691.24	180	3.7618%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18063804.68
5573540	5/31/1996	3380	1.07	3669.83	181	3.7827%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17959037.86
5573540	5/1/1994	3360	1.07	3648.42	182	3.8036%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17854271.04
5573540	5/11/2002	3350	1.07	3637.72	183	3.8245%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17801887.63
5573540	5/13/1998	3330	1.07	3616.31	184	3.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17697120.81

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/14/1998	3330	1.07	3616.31	184	3.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17697120.81
5573540	6/13/2010	3330	1.07	3616.31	184	3.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17697120.81
5573540	6/15/2011	3320	1.07	3605.61	187	3.9080%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17644737.4
5573540	6/17/2015	3320	1.07	3605.61	187	3.9080%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17644737.4
5573540	5/13/1995	3310	1.07	3594.90	189	3.9498%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17592353.99
5573540	6/13/1998	3310	1.07	3594.90	189	3.9498%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17592353.99
5573540	6/28/2015	3310	1.07	3594.90	189	3.9498%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17592353.99
5573540	6/19/2015	3300	1.07	3584.20	192	4.0125%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17539970.58
5573540	5/5/1996	3280	1.07	3562.79	193	4.0334%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17435203.75
5573540	10/19/1993	3280	1.07	3562.79	193	4.0334%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17435203.75
5573540	5/2/2011	3260	1.07	3541.38	195	4.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17330436.93
5573540	6/18/2015	3260	1.07	3541.38	195	4.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17330436.93
5573540	5/30/1996	3250	1.07	3530.68	197	4.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17278053.52
5573540	5/4/2009	3250	1.07	3530.68	197	4.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17278053.52
5573540	7/2/2015	3250	1.07	3530.68	197	4.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17278053.52
5573540	10/27/1993	3250	1.07	3530.68	197	4.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17278053.52
5573540	6/1/2013	3240	1.07	3519.97	201	4.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17225670.11
5573540	6/27/2013	3240	1.07	3519.97	201	4.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17225670.11
5573540	7/30/2006	3230	1.07	3509.27	203	4.2424%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17173286.7
5573540	7/16/2008	3220	1.07	3498.56	204	4.2633%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17120903.29
5573540	5/18/1991	3200	1.07	3477.15	205	4.2842%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17016136.47
5573540	5/8/2002	3180	1.07	3455.75	206	4.3051%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16911369.65
5573540	7/10/2015	3160	1.07	3434.34	207	4.3260%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16806602.83
5573540	10/27/2009	3160	1.07	3434.34	207	4.3260%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16806602.83
5573540	6/14/1998	3140	1.07	3412.93	209	4.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16701836
5573540	6/21/2009	3140	1.07	3412.93	209	4.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16701836
5573540	5/22/2009	3120	1.07	3391.52	211	4.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16597069.18
5573540	6/4/2013	3120	1.07	3391.52	211	4.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16597069.18
5573540	6/25/1998	3110	1.07	3380.82	213	4.4514%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16544685.77
5573540	6/1/1995	3100	1.07	3370.11	214	4.4723%	Fecal_coliform	1117	cfu/100mL	200	283.2	92109508.69	16492302.36
5573540	6/14/2008	3100	1.07	3370.11	214	4.4723%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16492302.36
5573540	7/3/1993	3090	1.07	3359.41	216	4.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16439918.95
5573540	5/12/1995	3080	1.07	3348.70	217	4.5350%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16387535.54
5573540	5/20/2002	3080	1.07	3348.70	217	4.5350%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16387535.54
5573540	6/26/2010	3060	1.07	3327.29	219	4.5768%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16282768.72
5573540	5/6/2009	3050	1.07	3316.59	220	4.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16230385.31
5573540	5/21/1990	3040	1.07	3305.89	221	4.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16178001.9
5573540	5/8/1994	3040	1.07	3305.89	221	4.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16178001.9
5573540	10/14/1990	3040	1.07	3305.89	221	4.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16178001.9
5573540	5/9/1994	3030	1.07	3295.18	224	4.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16125618.49
5573540	5/10/1995	3030	1.07	3295.18	224	4.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16125618.49
5573540	7/14/2014	3020	1.07	3284.48	226	4.7231%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16073235.08
5573540	6/5/1996	3000	1.07	3263.07	227	4.7440%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15968468.25
5573540	5/1/2002	2990	1.07	3252.36	228	4.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15916084.84
5573540	5/26/1998	2980	1.07	3241.66	229	4.7858%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15863701.43
5573540	7/28/1992	2940	1.07	3198.84	230	4.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15654167.79

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/19/1991	2930	1.07	3188.14	231	4.8276%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15601784.38
5573540	7/10/2008	2920	1.07	3177.44	232	4.8485%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15549400.97
5573540	5/2/1994	2910	1.07	3166.73	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15497017.56
5573540	5/10/2003	2910	1.07	3166.73	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15497017.56
5573540	5/5/2009	2910	1.07	3166.73	233	4.8694%	Fecal_coliform	5800	cfu/100mL	200	283.2	449413509.2	15497017.56
5573540	5/28/2013	2910	1.07	3166.73	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15497017.56
5573540	6/10/1996	2910	1.07	3166.73	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15497017.56
5573540	9/28/1993	2910	1.07	3166.73	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15497017.56
5573540	5/26/1996	2900	1.07	3156.03	239	4.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15444634.15
5573540	6/14/2002	2900	1.07	3156.03	239	4.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15444634.15
5573540	7/8/1993	2900	1.07	3156.03	239	4.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15444634.15
5573540	5/15/2004	2890	1.07	3145.32	242	5.0575%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15392250.74
5573540	7/11/2015	2890	1.07	3145.32	242	5.0575%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15392250.74
5573540	6/27/1990	2880	1.07	3134.62	244	5.0993%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15339867.33
5573540	6/6/1996	2870	1.07	3123.91	245	5.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15287483.91
5573540	6/14/2003	2870	1.07	3123.91	245	5.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15287483.91
5573540	6/26/1998	2860	1.07	3113.21	247	5.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15235100.5
5573540	6/5/2013	2860	1.07	3113.21	247	5.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15235100.5
5573540	6/13/2002	2850	1.07	3102.51	249	5.2038%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15182717.09
5573540	6/20/2015	2850	1.07	3102.51	249	5.2038%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15182717.09
5573540	7/30/1993	2840	1.07	3091.80	251	5.2456%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15130333.68
5573540	5/2/1998	2830	1.07	3081.10	252	5.2665%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15077950.27
5573540	7/16/2015	2830	1.07	3081.10	252	5.2665%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15077950.27
5573540	6/26/1990	2820	1.07	3070.39	254	5.3083%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15025566.86
5573540	6/24/2014	2820	1.07	3070.39	254	5.3083%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15025566.86
5573540	7/20/2014	2820	1.07	3070.39	254	5.3083%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15025566.86
5573540	5/21/1991	2810	1.07	3059.69	257	5.3710%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14973183.45
5573540	6/27/2010	2810	1.07	3059.69	257	5.3710%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14973183.45
5573540	7/13/2014	2810	1.07	3059.69	257	5.3710%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14973183.45
5573540	10/24/1993	2810	1.07	3059.69	257	5.3710%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14973183.45
5573540	10/29/1993	2810	1.07	3059.69	257	5.3710%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14973183.45
5573540	5/16/1996	2800	1.07	3048.98	262	5.4754%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14920800.04
5573540	5/17/1991	2790	1.07	3038.28	263	5.4963%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14868416.63
5573540	6/12/1996	2780	1.07	3027.58	264	5.5172%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14816033.22
5573540	5/4/1996	2770	1.07	3016.87	265	5.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14763649.81
5573540	6/4/1995	2770	1.07	3016.87	265	5.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14763649.81
5573540	6/3/2011	2770	1.07	3016.87	265	5.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14763649.81
5573540	6/20/2004	2760	1.07	3006.17	268	5.6008%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14711266.4
5573540	5/3/2011	2750	1.07	2995.46	269	5.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14658882.99
5573540	6/22/2009	2750	1.07	2995.46	269	5.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14658882.99
5573540	6/26/2013	2750	1.07	2995.46	269	5.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14658882.99
5573540	6/7/1996	2740	1.07	2984.76	272	5.6844%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14606499.58
5573540	6/6/2004	2740	1.07	2984.76	272	5.6844%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14606499.58
5573540	5/17/1996	2730	1.07	2974.05	274	5.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14554116.16
5573540	6/15/2002	2730	1.07	2974.05	274	5.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14554116.16
5573540	6/27/1998	2720	1.07	2963.35	276	5.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14501732.75

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/12/2002	2720	1.07	2963.35	276	5.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14501732.75
5573540	7/1/2013	2720	1.07	2963.35	276	5.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14501732.75
5573540	10/16/1990	2720	1.07	2963.35	276	5.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14501732.75
5573540	10/26/2009	2720	1.07	2963.35	276	5.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14501732.75
5573540	6/4/2014	2710	1.07	2952.65	281	5.8725%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14449349.34
5573540	9/29/1993	2700	1.07	2941.94	282	5.8934%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14396965.93
5573540	10/11/1993	2700	1.07	2941.94	282	5.8934%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14396965.93
5573540	5/2/2002	2690	1.07	2931.24	284	5.9352%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14344582.52
5573540	10/13/1990	2690	1.07	2931.24	284	5.9352%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14344582.52
5573540	6/14/1999	2670	1.07	2909.83	286	5.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14239815.7
5573540	6/11/1996	2640	1.07	2877.72	287	5.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14082665.47
5573540	6/6/2013	2630	1.07	2867.01	288	6.0188%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14030282.06
5573540	10/15/1990	2630	1.07	2867.01	288	6.0188%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14030282.06
5573540	10/24/2009	2620	1.07	2856.31	290	6.0606%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13977898.65
5573540	5/15/1998	2610	1.07	2845.60	291	6.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13925515.24
5573540	7/27/2006	2600	1.07	2834.90	292	6.1024%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13873131.83
5573540	5/3/2002	2590	1.07	2824.19	293	6.1233%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13820748.41
5573540	5/16/2008	2580	1.07	2813.49	294	6.1442%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13768365
5573540	5/27/1998	2570	1.07	2802.79	295	6.1651%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13715981.59
5573540	6/15/2003	2570	1.07	2802.79	295	6.1651%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13715981.59
5573540	6/28/2011	2570	1.07	2802.79	295	6.1651%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13715981.59
5573540	6/26/2015	2570	1.07	2802.79	295	6.1651%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13715981.59
5573540	6/16/2002	2560	1.07	2792.08	299	6.2487%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13663598.18
5573540	5/15/1990	2550	1.07	2781.38	300	6.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13611214.77
5573540	10/10/1990	2550	1.07	2781.38	300	6.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13611214.77
5573540	10/12/1990	2550	1.07	2781.38	300	6.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13611214.77
5573540	5/20/1991	2540	1.07	2770.67	303	6.3323%	Fecal_coliform	320	cfu/100mL	200	283.2	21694130.18	13558831.36
5573540	6/12/1998	2540	1.07	2770.67	303	6.3323%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13558831.36
5573540	6/16/2011	2540	1.07	2770.67	303	6.3323%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13558831.36
5573540	5/1/1998	2530	1.07	2759.97	306	6.3950%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13506447.95
5573540	6/13/2004	2520	1.07	2749.26	307	6.4159%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13454064.54
5573540	7/9/2008	2520	1.07	2749.26	307	6.4159%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13454064.54
5573540	5/18/1996	2510	1.07	2738.56	309	6.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13401681.13
5573540	6/18/2011	2510	1.07	2738.56	309	6.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13401681.13
5573540	5/22/1990	2500	1.07	2727.86	311	6.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13349297.72
5573540	5/19/2008	2500	1.07	2727.86	311	6.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13349297.72
5573540	9/8/1993	2500	1.07	2727.86	311	6.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13349297.72
5573540	6/25/2014	2480	1.07	2706.45	314	6.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13244530.9
5573540	9/22/2008	2480	1.07	2706.45	314	6.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13244530.9
5573540	9/27/1993	2470	1.07	2695.74	316	6.6040%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13192147.49
5573540	5/24/1998	2440	1.07	2663.63	317	6.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13034997.25
5573540	5/4/2002	2440	1.07	2663.63	317	6.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13034997.25
5573540	6/21/2015	2440	1.07	2663.63	317	6.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13034997.25
5573540	7/29/1993	2440	1.07	2663.63	317	6.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13034997.25
5573540	5/14/2004	2430	1.07	2652.93	321	6.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12982613.84
5573540	6/13/1995	2420	1.07	2642.22	322	6.7294%	Fecal_coliform	650	cfu/100mL	200	283.2	42023248.9	12930230.43

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/4/2011	2410	1.07	2631.52	323	6.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12877847.02
5573540	7/3/2015	2410	1.07	2631.52	323	6.7503%	Fecal_coliform	3267	cfu/100mL	200	283.2	210359631.1	12877847.02
5573540	10/12/1993	2410	1.07	2631.52	323	6.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12877847.02
5573540	10/25/2009	2410	1.07	2631.52	323	6.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12877847.02
5573540	5/29/2013	2400	1.07	2620.81	327	6.8339%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12825463.61
5573540	6/22/2015	2390	1.07	2610.11	328	6.8548%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12775080.2
5573540	5/14/1990	2380	1.07	2599.40	329	6.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12720696.79
5573540	7/6/2014	2380	1.07	2599.40	329	6.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12720696.79
5573540	9/30/1993	2380	1.07	2599.40	329	6.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12720696.79
5573540	6/2/1995	2370	1.07	2588.70	332	6.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12668313.38
5573540	5/10/1994	2360	1.07	2578.00	333	6.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12615929.97
5573540	5/21/2002	2360	1.07	2578.00	333	6.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12615929.97
5573540	6/28/1998	2360	1.07	2578.00	333	6.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12615929.97
5573540	6/19/2009	2360	1.07	2578.00	333	6.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12615929.97
5573540	7/5/2000	2360	1.07	2578.00	333	6.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12615929.97
5573540	5/22/1991	2350	1.07	2567.29	338	7.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12563546.56
5573540	6/28/2010	2350	1.07	2567.29	338	7.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12563546.56
5573540	7/16/1993	2350	1.07	2567.29	338	7.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12563546.56
5573540	10/28/1993	2350	1.07	2567.29	338	7.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12563546.56
5573540	9/18/1993	2340	1.07	2556.59	342	7.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12511163.15
5573540	10/18/1993	2340	1.07	2556.59	342	7.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12511163.15
5573540	6/13/1996	2330	1.07	2545.88	344	7.1891%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12458779.74
5573540	7/29/1992	2330	1.07	2545.88	344	7.1891%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12458779.74
5573540	10/13/1993	2320	1.07	2535.18	346	7.2309%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12406396.32
5573540	5/23/1991	2310	1.07	2524.47	347	7.2518%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12354012.91
5573540	5/24/1991	2310	1.07	2524.47	347	7.2518%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12354012.91
5573540	6/19/1990	2310	1.07	2524.47	347	7.2518%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12354012.91
5573540	8/29/2004	2310	1.07	2524.47	347	7.2518%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12354012.91
5573540	5/7/2009	2300	1.07	2513.77	351	7.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12301629.5
5573540	5/23/2009	2300	1.07	2513.77	351	7.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12301629.5
5573540	6/3/1995	2290	1.07	2503.07	353	7.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12249246.09
5573540	7/13/2006	2290	1.07	2503.07	353	7.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12249246.09
5573540	8/28/2004	2290	1.07	2503.07	353	7.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12249246.09
5573540	9/13/2014	2290	1.07	2503.07	353	7.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12249246.09
5573540	5/10/2013	2280	1.07	2492.36	357	7.4608%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12196862.68
5573540	9/19/1993	2280	1.07	2492.36	357	7.4608%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12196862.68
5573540	9/24/1993	2280	1.07	2492.36	357	7.4608%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12196862.68
5573540	10/11/1990	2280	1.07	2492.36	357	7.4608%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12196862.68
5573540	7/15/2003	2270	1.07	2481.66	361	7.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12144479.27
5573540	9/17/1993	2270	1.07	2481.66	361	7.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12144479.27
5573540	9/16/1993	2260	1.07	2470.95	363	7.5862%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12092095.86
5573540	5/1/1996	2250	1.07	2460.25	364	7.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12039712.45
5573540	6/8/1996	2250	1.07	2460.25	364	7.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12039712.45
5573540	6/5/2014	2250	1.07	2460.25	364	7.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12039712.45
5573540	8/19/2006	2250	1.07	2460.25	364	7.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12039712.45
5573540	7/3/2014	2240	1.07	2449.55	368	7.6907%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11987329.04

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/13/1990	2230	1.07	2438.84	369	7.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11934945.63
5573540	6/12/2014	2230	1.07	2438.84	369	7.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11934945.63
5573540	9/7/1993	2230	1.07	2438.84	369	7.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11934945.63
5573540	10/1/1993	2230	1.07	2438.84	369	7.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11934945.63
5573540	10/10/1993	2230	1.07	2438.84	369	7.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11934945.63
5573540	5/25/1991	2210	1.07	2417.43	374	7.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11830178.81
5573540	5/3/1994	2210	1.07	2417.43	374	7.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11830178.81
5573540	5/11/2003	2210	1.07	2417.43	374	7.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11830178.81
5573540	5/6/2013	2210	1.07	2417.43	374	7.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11830178.81
5573540	6/7/2013	2210	1.07	2417.43	374	7.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11830178.81
5573540	5/23/1990	2200	1.07	2406.73	379	7.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11777795.4
5573540	6/15/1990	2200	1.07	2406.73	379	7.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11777795.4
5573540	6/30/1990	2200	1.07	2406.73	379	7.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11777795.4
5573540	6/13/1999	2190	1.07	2396.02	382	7.9833%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11725411.99
5573540	5/15/2008	2180	1.07	2385.32	383	8.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11673028.57
5573540	7/5/2014	2180	1.07	2385.32	383	8.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11673028.57
5573540	6/17/2002	2170	1.07	2374.62	385	8.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11620645.16
5573540	6/23/2009	2170	1.07	2374.62	385	8.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11620645.16
5573540	7/7/2014	2170	1.07	2374.62	385	8.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11620645.16
5573540	10/9/1990	2170	1.07	2374.62	385	8.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11620645.16
5573540	5/9/1995	2160	1.07	2363.91	389	8.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11568261.75
5573540	5/22/2002	2160	1.07	2363.91	389	8.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11568261.75
5573540	10/14/1993	2160	1.07	2363.91	389	8.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11568261.75
5573540	5/18/2008	2150	1.07	2353.21	392	8.1923%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11515878.34
5573540	6/8/2001	2150	1.07	2353.21	392	8.1923%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11515878.34
5573540	6/12/2010	2150	1.07	2353.21	392	8.1923%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11515878.34
5573540	7/16/2003	2150	1.07	2353.21	392	8.1923%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11515878.34
5573540	5/11/2013	2140	1.07	2342.50	396	8.2759%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11463494.93
5573540	6/19/2011	2140	1.07	2342.50	396	8.2759%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11463494.93
5573540	5/12/2008	2130	1.07	2331.80	398	8.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11411111.52
5573540	6/5/2004	2130	1.07	2331.80	398	8.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11411111.52
5573540	6/25/2015	2130	1.07	2331.80	398	8.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11411111.52
5573540	7/30/1992	2130	1.07	2331.80	398	8.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11411111.52
5573540	6/5/1999	2120	1.07	2321.09	402	8.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11358728.11
5573540	7/9/1992	2120	1.07	2321.09	402	8.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11358728.11
5573540	6/15/1999	2110	1.07	2310.39	404	8.4431%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11306344.7
5573540	9/12/1993	2110	1.07	2310.39	404	8.4431%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11306344.7
5573540	5/5/2013	2100	1.07	2299.69	406	8.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11253961.29
5573540	6/28/1990	2100	1.07	2299.69	406	8.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11253961.29
5573540	7/28/1993	2100	1.07	2299.69	406	8.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11253961.29
5573540	5/19/1996	2090	1.07	2288.98	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11201577.88
5573540	5/16/2004	2090	1.07	2288.98	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11201577.88
5573540	6/30/1998	2090	1.07	2288.98	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11201577.88
5573540	6/11/2011	2090	1.07	2288.98	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11201577.88
5573540	6/13/2014	2090	1.07	2288.98	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11201577.88
5573540	6/23/2015	2090	1.07	2288.98	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11201577.88

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/14/2003	2090	1.07	2288.98	409	8.5475%	Fecal_coliform	1600	cfu/100mL	200	283.2	89612623.03	11201577.88
5573540	7/4/2014	2090	1.07	2288.98	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11201577.88
5573540	10/2/1993	2090	1.07	2288.98	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11201577.88
5573540	5/17/2008	2080	1.07	2278.28	418	8.7356%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11149194.47
5573540	6/30/1993	2080	1.07	2278.28	418	8.7356%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11149194.47
5573540	10/17/1993	2070	1.07	2267.57	420	8.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11096811.06
5573540	5/7/1994	2060	1.07	2256.87	421	8.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11044427.65
5573540	7/25/2010	2060	1.07	2256.87	421	8.7983%	Fecal_coliform	50	cfu/100mL	200	283.2	2761106.912	11044427.65
5573540	5/12/1994	2050	1.07	2246.16	423	8.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10992044.24
5573540	5/14/2008	2050	1.07	2246.16	423	8.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10992044.24
5573540	6/6/1999	2050	1.07	2246.16	423	8.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10992044.24
5573540	6/12/2015	2050	1.07	2246.16	423	8.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10992044.24
5573540	5/27/1990	2040	1.07	2235.46	427	8.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10939660.82
5573540	5/28/2004	2040	1.07	2235.46	427	8.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10939660.82
5573540	6/4/2011	2040	1.07	2235.46	427	8.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10939660.82
5573540	5/5/1993	2030	1.07	2224.76	430	8.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10887277.41
5573540	5/27/2004	2030	1.07	2224.76	430	8.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10887277.41
5573540	6/29/1990	2030	1.07	2224.76	430	8.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10887277.41
5573540	6/14/2004	2030	1.07	2224.76	430	8.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10887277.41
5573540	6/11/2014	2030	1.07	2224.76	430	8.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10887277.41
5573540	10/23/2009	2030	1.07	2224.76	430	8.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10887277.41
5573540	5/20/2004	2020	1.07	2214.05	436	9.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10834894
5573540	5/13/2009	2020	1.07	2214.05	436	9.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10834894
5573540	9/15/1993	2020	1.07	2214.05	436	9.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10834894
5573540	7/5/1990	2010	1.07	2203.35	439	9.1745%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10782510.59
5573540	7/31/1992	2010	1.07	2203.35	439	9.1745%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10782510.59
5573540	7/27/1993	2010	1.07	2203.35	439	9.1745%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10782510.59
5573540	7/2/2014	2010	1.07	2203.35	439	9.1745%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10782510.59
5573540	6/11/2010	2000	1.07	2192.64	443	9.2581%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10730127.18
5573540	5/11/1994	1990	1.07	2181.94	444	9.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10677743.77
5573540	7/2/1993	1990	1.07	2181.94	444	9.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10677743.77
5573540	9/26/1993	1990	1.07	2181.94	444	9.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10677743.77
5573540	10/25/2001	1990	1.07	2181.94	444	9.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10677743.77
5573540	6/16/1990	1980	1.07	2171.23	448	9.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10625360.36
5573540	5/20/2010	1970	1.07	2160.53	449	9.3835%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10572976.95
5573540	5/25/1990	1960	1.07	2149.83	450	9.4044%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10520593.54
5573540	5/29/2004	1960	1.07	2149.83	450	9.4044%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10520593.54
5573540	5/19/2010	1950	1.07	2139.12	452	9.4462%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10468210.13
5573540	5/9/1991	1940	1.07	2128.42	453	9.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10415826.72
5573540	6/3/2008	1940	1.07	2128.42	453	9.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10415826.72
5573540	9/25/1993	1940	1.07	2128.42	453	9.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10415826.72
5573540	5/5/1994	1930	1.07	2117.71	456	9.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10363443.31
5573540	5/21/2004	1930	1.07	2117.71	456	9.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10363443.31
5573540	6/7/2004	1930	1.07	2117.71	456	9.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10363443.31
5573540	7/6/2000	1930	1.07	2117.71	456	9.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10363443.31
5573540	9/5/1993	1930	1.07	2117.71	456	9.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10363443.31

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/1/1993	1920	1.07	2107.01	461	9.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10311059.9
5573540	5/2/2007	1920	1.07	2107.01	461	9.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10311059.9
5573540	6/15/2008	1920	1.07	2107.01	461	9.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10311059.9
5573540	5/21/2010	1910	1.07	2096.30	464	9.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10258676.49
5573540	9/11/1993	1910	1.07	2096.30	464	9.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10258676.49
5573540	9/23/1993	1910	1.07	2096.30	464	9.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10258676.49
5573540	5/1/2007	1900	1.07	2085.60	467	9.7597%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10206293.07
5573540	7/8/2008	1900	1.07	2085.60	467	9.7597%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10206293.07
5573540	5/28/1990	1890	1.07	2074.90	469	9.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10153909.66
5573540	5/30/2004	1890	1.07	2074.90	469	9.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10153909.66
5573540	7/10/1992	1890	1.07	2074.90	469	9.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10153909.66
5573540	7/13/1992	1890	1.07	2074.90	469	9.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10153909.66
5573540	5/20/1996	1880	1.07	2064.19	473	9.8851%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10101526.25
5573540	7/2/2013	1880	1.07	2064.19	473	9.8851%	Fecal_coliform	3300	cfu/100mL	200	283.2	166675183.2	10101526.25
5573540	5/26/1990	1870	1.07	2053.49	475	9.9269%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10049142.84
5573540	5/11/1991	1850	1.07	2032.08	476	9.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9944376.021
5573540	5/13/2008	1850	1.07	2032.08	476	9.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9944376.021
5573540	6/14/1995	1850	1.07	2032.08	476	9.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9944376.021
5573540	7/12/1992	1850	1.07	2032.08	476	9.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9944376.021
5573540	5/23/2002	1840	1.07	2021.37	480	10.0313%	Fecal_coliform	310	cfu/100mL	200	283.2	15332588.55	9891992.61
5573540	5/19/2004	1840	1.07	2021.37	480	10.0313%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9891992.61
5573540	7/25/1990	1840	1.07	2021.37	480	10.0313%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9891992.61
5573540	10/26/1993	1840	1.07	2021.37	480	10.0313%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9891992.61
5573540	6/18/2002	1830	1.07	2010.67	484	10.1149%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9839609.199
5573540	7/3/1990	1830	1.07	2010.67	484	10.1149%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9839609.199
5573540	7/14/1992	1830	1.07	2010.67	484	10.1149%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9839609.199
5573540	7/31/1993	1830	1.07	2010.67	484	10.1149%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9839609.199
5573540	5/2/1993	1820	1.07	1999.97	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787225.789
5573540	5/6/1994	1820	1.07	1999.97	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787225.789
5573540	5/22/2010	1820	1.07	1999.97	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787225.789
5573540	5/7/2013	1820	1.07	1999.97	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787225.789
5573540	6/10/2010	1820	1.07	1999.97	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787225.789
5573540	7/1/1990	1820	1.07	1999.97	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787225.789
5573540	6/20/1993	1810	1.07	1989.26	494	10.3239%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9734842.378
5573540	7/4/2015	1810	1.07	1989.26	494	10.3239%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9734842.378
5573540	9/12/2014	1810	1.07	1989.26	494	10.3239%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9734842.378
5573540	5/4/2013	1800	1.07	1978.56	497	10.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9682458.967
5573540	6/27/2011	1800	1.07	1978.56	497	10.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9682458.967
5573540	6/10/2014	1800	1.07	1978.56	497	10.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9682458.967
5573540	8/27/2004	1800	1.07	1978.56	497	10.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9682458.967
5573540	6/13/2003	1790	1.07	1967.85	501	10.4702%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9630075.556
5573540	6/9/2014	1790	1.07	1967.85	501	10.4702%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9630075.556
5573540	10/17/1990	1790	1.07	1967.85	501	10.4702%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9630075.556
5573540	10/3/1993	1790	1.07	1967.85	501	10.4702%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9630075.556
5573540	5/24/1990	1780	1.07	1957.15	505	10.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9577692.146
5573540	5/16/2014	1780	1.07	1957.15	505	10.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9577692.146

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/8/2014	1780	1.07	1957.15	505	10.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9577692.146
5573540	7/17/2015	1780	1.07	1957.15	505	10.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9577692.146
5573540	10/4/2014	1780	1.07	1957.15	505	10.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9577692.146
5573540	5/2/1996	1770	1.07	1946.44	510	10.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9525308.735
5573540	5/5/2002	1770	1.07	1946.44	510	10.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9525308.735
5573540	6/8/1995	1770	1.07	1946.44	510	10.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9525308.735
5573540	6/4/2004	1770	1.07	1946.44	510	10.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9525308.735
5573540	9/20/1993	1770	1.07	1946.44	510	10.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9525308.735
5573540	5/31/2004	1760	1.07	1935.74	515	10.7628%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9472925.324
5573540	7/9/1993	1760	1.07	1935.74	515	10.7628%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9472925.324
5573540	8/1/1992	1760	1.07	1935.74	515	10.7628%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9472925.324
5573540	5/17/2014	1750	1.07	1925.04	518	10.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9420541.913
5573540	6/12/2004	1750	1.07	1925.04	518	10.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9420541.913
5573540	7/1/1998	1750	1.07	1925.04	518	10.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9420541.913
5573540	7/4/1998	1750	1.07	1925.04	518	10.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9420541.913
5573540	5/26/2004	1740	1.07	1914.33	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9368158.503
5573540	6/19/2002	1740	1.07	1914.33	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9368158.503
5573540	7/6/1990	1740	1.07	1914.33	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9368158.503
5573540	7/1/1993	1740	1.07	1914.33	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9368158.503
5573540	7/17/2008	1740	1.07	1914.33	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9368158.503
5573540	10/31/2001	1740	1.07	1914.33	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9368158.503
5573540	5/10/1991	1730	1.07	1903.63	528	11.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9315775.092
5573540	5/4/1994	1730	1.07	1903.63	528	11.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9315775.092
5573540	5/29/2000	1730	1.07	1903.63	528	11.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9315775.092
5573540	6/21/2004	1730	1.07	1903.63	528	11.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9315775.092
5573540	6/12/1995	1720	1.07	1892.92	532	11.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9263391.681
5573540	6/9/1996	1720	1.07	1892.92	532	11.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9263391.681
5573540	6/24/2015	1720	1.07	1892.92	532	11.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9263391.681
5573540	9/14/2014	1720	1.07	1892.92	532	11.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9263391.681
5573540	5/8/2009	1710	1.07	1882.22	536	11.2017%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9211008.271
5573540	6/2/2008	1710	1.07	1882.22	536	11.2017%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9211008.271
5573540	6/9/2011	1710	1.07	1882.22	536	11.2017%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9211008.271
5573540	5/18/2014	1700	1.07	1871.51	539	11.2644%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9158624.86
5573540	5/11/2008	1690	1.07	1860.81	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9106241.449
5573540	5/30/2013	1690	1.07	1860.81	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9106241.449
5573540	5/15/2014	1690	1.07	1860.81	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9106241.449
5573540	6/5/1995	1690	1.07	1860.81	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9106241.449
5573540	6/2/1999	1690	1.07	1860.81	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9106241.449
5573540	6/17/2003	1690	1.07	1860.81	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9106241.449
5573540	9/16/2014	1690	1.07	1860.81	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9106241.449
5573540	10/15/2014	1690	1.07	1860.81	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9106241.449
5573540	5/22/2004	1680	1.07	1850.11	548	11.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9053858.038
5573540	6/9/1993	1680	1.07	1850.11	548	11.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9053858.038
5573540	6/16/2003	1680	1.07	1850.11	548	11.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9053858.038
5573540	6/1/2006	1680	1.07	1850.11	548	11.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9053858.038
5573540	5/5/2011	1670	1.07	1839.40	552	11.5361%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9001474.628

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/8/1993	1670	1.07	1839.40	552	11.5361%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9001474.628
5573540	10/16/2014	1670	1.07	1839.40	552	11.5361%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9001474.628
5573540	5/12/2013	1660	1.07	1828.70	555	11.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8949091.217
5573540	5/31/2013	1660	1.07	1828.70	555	11.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8949091.217
5573540	5/11/2015	1660	1.07	1828.70	555	11.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8949091.217
5573540	10/25/1993	1650	1.07	1817.99	558	11.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8896707.806
5573540	5/16/1991	1640	1.07	1807.29	559	11.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8844324.395
5573540	5/3/2013	1640	1.07	1807.29	559	11.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8844324.395
5573540	9/9/1993	1640	1.07	1807.29	559	11.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8844324.395
5573540	6/14/2014	1630	1.07	1796.59	562	11.7450%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8791940.985
5573540	10/3/2014	1630	1.07	1796.59	562	11.7450%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8791940.985
5573540	5/13/2003	1610	1.07	1775.18	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8687174.163
5573540	5/20/2008	1610	1.07	1775.18	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8687174.163
5573540	6/29/2010	1610	1.07	1775.18	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8687174.163
5573540	6/5/2011	1610	1.07	1775.18	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8687174.163
5573540	7/22/2008	1610	1.07	1775.18	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8687174.163
5573540	8/27/2002	1610	1.07	1775.18	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8687174.163
5573540	5/15/2003	1600	1.07	1764.47	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8634790.753
5573540	5/18/2004	1600	1.07	1764.47	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8634790.753
5573540	6/15/1995	1600	1.07	1764.47	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8634790.753
5573540	7/17/1993	1600	1.07	1764.47	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8634790.753
5573540	9/5/2008	1600	1.07	1764.47	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8634790.753
5573540	10/5/2014	1600	1.07	1764.47	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8634790.753
5573540	5/12/1991	1590	1.07	1753.77	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8582407.342
5573540	5/9/2009	1590	1.07	1753.77	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8582407.342
5573540	5/23/2010	1590	1.07	1753.77	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8582407.342
5573540	6/10/1993	1590	1.07	1753.77	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8582407.342
5573540	6/3/2004	1590	1.07	1753.77	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8582407.342
5573540	7/22/1990	1590	1.07	1753.77	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8582407.342
5573540	10/16/1993	1590	1.07	1753.77	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8582407.342
5573540	5/29/1990	1580	1.07	1743.06	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8530023.931
5573540	5/24/2009	1580	1.07	1743.06	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8530023.931
5573540	6/29/1998	1580	1.07	1743.06	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8530023.931
5573540	6/16/1999	1580	1.07	1743.06	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8530023.931
5573540	7/11/1992	1580	1.07	1743.06	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8530023.931
5573540	7/15/1993	1580	1.07	1743.06	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8530023.931
5573540	7/31/2006	1580	1.07	1743.06	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8530023.931
5573540	9/6/1993	1580	1.07	1743.06	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8530023.931
5573540	10/31/2004	1580	1.07	1743.06	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8530023.931
5573540	6/11/1998	1570	1.07	1732.36	592	12.3720%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8477640.52
5573540	7/21/2014	1570	1.07	1732.36	592	12.3720%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8477640.52
5573540	7/4/1990	1560	1.07	1721.66	594	12.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8425257.11
5573540	5/9/2013	1550	1.07	1710.95	595	12.4347%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8372873.699
5573540	10/15/1993	1550	1.07	1710.95	595	12.4347%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8372873.699
5573540	5/30/1990	1540	1.07	1700.25	597	12.4765%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8320490.288
5573540	5/6/1996	1540	1.07	1700.25	597	12.4765%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8320490.288

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/6/2011	1540	1.07	1700.25	597	12.4765%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8320490.288
5573540	6/24/2000	1530	1.07	1689.54	600	12.5392%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8268106.877
5573540	7/26/1993	1530	1.07	1689.54	600	12.5392%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8268106.877
5573540	9/10/1993	1530	1.07	1689.54	600	12.5392%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8268106.877
5573540	10/14/2014	1530	1.07	1689.54	600	12.5392%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8268106.877
5573540	5/28/2000	1520	1.07	1678.84	604	12.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8215723.467
5573540	6/14/1996	1520	1.07	1678.84	604	12.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8215723.467
5573540	6/26/2000	1520	1.07	1678.84	604	12.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8215723.467
5573540	10/18/1990	1520	1.07	1678.84	604	12.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8215723.467
5573540	5/18/2010	1510	1.07	1668.13	608	12.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8163340.056
5573540	8/29/2006	1510	1.07	1668.13	608	12.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8163340.056
5573540	10/18/2014	1510	1.07	1668.13	608	12.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8163340.056
5573540	5/21/2008	1500	1.07	1657.43	611	12.7691%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8110956.645
5573540	6/17/1990	1500	1.07	1657.43	611	12.7691%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8110956.645
5573540	7/2/1990	1500	1.07	1657.43	611	12.7691%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8110956.645
5573540	8/26/2002	1500	1.07	1657.43	611	12.7691%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8110956.645
5573540	10/9/1993	1500	1.07	1657.43	611	12.7691%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8110956.645
5573540	5/1/2013	1490	1.07	1646.73	616	12.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8058573.235
5573540	6/14/1990	1490	1.07	1646.73	616	12.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8058573.235
5573540	6/23/2000	1490	1.07	1646.73	616	12.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8058573.235
5573540	6/26/2014	1490	1.07	1646.73	616	12.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8058573.235
5573540	7/8/1998	1490	1.07	1646.73	616	12.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8058573.235
5573540	5/12/2015	1480	1.07	1636.02	621	12.9781%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8006189.824
5573540	7/2/1998	1480	1.07	1636.02	621	12.9781%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8006189.824
5573540	10/17/2014	1480	1.07	1636.02	621	12.9781%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8006189.824
5573540	5/23/1998	1470	1.07	1625.32	624	13.0408%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7953806.413
5573540	6/14/2005	1460	1.07	1614.61	625	13.0617%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7901423.002
5573540	10/6/2014	1460	1.07	1614.61	625	13.0617%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7901423.002
5573540	5/25/2009	1450	1.07	1603.91	627	13.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7849039.592
5573540	6/11/1990	1450	1.07	1603.91	627	13.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7849039.592
5573540	7/25/1992	1450	1.07	1603.91	627	13.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7849039.592
5573540	8/2/1992	1450	1.07	1603.91	627	13.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7849039.592
5573540	5/6/1991	1440	1.07	1593.20	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7796656.181
5573540	5/12/2003	1440	1.07	1593.20	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7796656.181
5573540	5/13/2010	1440	1.07	1593.20	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7796656.181
5573540	6/25/2000	1440	1.07	1593.20	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7796656.181
5573540	6/1/2015	1440	1.07	1593.20	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7796656.181
5573540	7/23/1990	1440	1.07	1593.20	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7796656.181
5573540	7/10/1993	1440	1.07	1593.20	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7796656.181
5573540	7/13/2003	1440	1.07	1593.20	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7796656.181
5573540	7/8/2014	1440	1.07	1593.20	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7796656.181
5573540	5/16/1998	1430	1.07	1582.50	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7744272.77
5573540	5/10/2009	1430	1.07	1582.50	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7744272.77
5573540	5/24/2010	1430	1.07	1582.50	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7744272.77
5573540	6/7/1993	1430	1.07	1582.50	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7744272.77
5573540	6/11/1995	1430	1.07	1582.50	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7744272.77

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/25/2002	1430	1.07	1582.50	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7744272.77
5573540	5/19/2014	1420	1.07	1571.80	646	13.5005%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7691889.359
5573540	6/24/2009	1420	1.07	1571.80	646	13.5005%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7691889.359
5573540	6/11/2015	1420	1.07	1571.80	646	13.5005%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7691889.359
5573540	7/24/2008	1420	1.07	1571.80	646	13.5005%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7691889.359
5573540	6/9/2001	1410	1.07	1561.09	650	13.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7639505.949
5573540	7/26/1990	1410	1.07	1561.09	650	13.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7639505.949
5573540	10/19/2014	1410	1.07	1561.09	650	13.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7639505.949
5573540	5/24/2002	1400	1.07	1550.39	653	13.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7587122.538
5573540	6/3/1999	1400	1.07	1550.39	653	13.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7587122.538
5573540	6/10/2001	1400	1.07	1550.39	653	13.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7587122.538
5573540	6/18/2009	1400	1.07	1550.39	653	13.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7587122.538
5573540	6/2/2015	1400	1.07	1550.39	653	13.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7587122.538
5573540	9/4/1993	1400	1.07	1550.39	653	13.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7587122.538
5573540	5/16/2011	1390	1.07	1539.68	659	13.7722%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7534739.127
5573540	6/11/2004	1390	1.07	1539.68	659	13.7722%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7534739.127
5573540	5/12/1990	1380	1.07	1528.98	661	13.8140%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7482355.717
5573540	5/8/1993	1380	1.07	1528.98	661	13.8140%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7482355.717
5573540	6/27/2014	1380	1.07	1528.98	661	13.8140%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7482355.717
5573540	7/9/1998	1380	1.07	1528.98	661	13.8140%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7482355.717
5573540	5/23/2004	1370	1.07	1518.27	665	13.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7429972.306
5573540	5/3/2007	1370	1.07	1518.27	665	13.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7429972.306
5573540	6/7/1992	1370	1.07	1518.27	665	13.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7429972.306
5573540	8/30/2004	1370	1.07	1518.27	665	13.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7429972.306
5573540	6/13/1994	1360	1.07	1507.57	669	13.9812%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7377588.895
5573540	5/4/1993	1350	1.07	1496.87	670	14.0021%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325205.484
5573540	5/22/2008	1350	1.07	1496.87	670	14.0021%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325205.484
5573540	6/22/2004	1350	1.07	1496.87	670	14.0021%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325205.484
5573540	6/5/2015	1350	1.07	1496.87	670	14.0021%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325205.484
5573540	5/28/1998	1340	1.07	1486.16	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7272822.074
5573540	5/14/2010	1340	1.07	1486.16	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7272822.074
5573540	6/10/1990	1340	1.07	1486.16	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7272822.074
5573540	6/1/2004	1340	1.07	1486.16	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7272822.074
5573540	6/18/2008	1340	1.07	1486.16	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7272822.074
5573540	6/3/2015	1340	1.07	1486.16	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7272822.074
5573540	5/11/2009	1330	1.07	1475.46	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7220438.663
5573540	6/14/1997	1330	1.07	1475.46	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7220438.663
5573540	6/12/2003	1330	1.07	1475.46	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7220438.663
5573540	6/8/2013	1330	1.07	1475.46	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7220438.663
5573540	6/4/2015	1330	1.07	1475.46	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7220438.663
5573540	6/9/2015	1330	1.07	1475.46	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7220438.663
5573540	7/11/2004	1330	1.07	1475.46	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7220438.663
5573540	7/18/2008	1330	1.07	1475.46	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7220438.663
5573540	8/14/1999	1330	1.07	1475.46	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7220438.663
5573540	5/7/1993	1320	1.07	1464.75	689	14.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7168055.252
5573540	6/7/1999	1320	1.07	1464.75	689	14.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7168055.252

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/23/2004	1320	1.07	1464.75	689	14.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7168055.252
5573540	7/3/1998	1320	1.07	1464.75	689	14.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7168055.252
5573540	9/23/2008	1320	1.07	1464.75	689	14.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7168055.252
5573540	5/8/1991	1310	1.07	1454.05	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7115671.841
5573540	5/17/2004	1310	1.07	1454.05	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7115671.841
5573540	6/6/1993	1310	1.07	1454.05	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7115671.841
5573540	6/9/1999	1310	1.07	1454.05	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7115671.841
5573540	6/7/2011	1310	1.07	1454.05	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7115671.841
5573540	6/12/2011	1310	1.07	1454.05	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7115671.841
5573540	10/26/2001	1310	1.07	1454.05	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7115671.841
5573540	5/14/2003	1300	1.07	1443.34	701	14.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7063288.431
5573540	6/2/2006	1300	1.07	1443.34	701	14.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7063288.431
5573540	7/20/1993	1300	1.07	1443.34	701	14.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7063288.431
5573540	10/4/1993	1300	1.07	1443.34	701	14.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7063288.431
5573540	10/7/2014	1300	1.07	1443.34	701	14.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7063288.431
5573540	5/19/2011	1290	1.07	1432.64	706	14.7544%	Fecal_coliform	340	cfu/100mL	200	283.2	11918538.53	7010905.02
5573540	6/18/1990	1290	1.07	1432.64	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7010905.02
5573540	6/5/1993	1290	1.07	1432.64	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7010905.02
5573540	6/9/1995	1290	1.07	1432.64	706	14.7544%	Fecal_coliform	450	cfu/100mL	200	283.2	15774536.3	7010905.02
5573540	6/15/1996	1290	1.07	1432.64	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7010905.02
5573540	6/13/1997	1290	1.07	1432.64	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7010905.02
5573540	6/26/1999	1290	1.07	1432.64	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7010905.02
5573540	7/24/1990	1290	1.07	1432.64	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7010905.02
5573540	7/19/1993	1290	1.07	1432.64	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7010905.02
5573540	5/9/1993	1280	1.07	1421.94	715	14.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6958521.609
5573540	6/7/2014	1280	1.07	1421.94	715	14.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6958521.609
5573540	7/26/2010	1280	1.07	1421.94	715	14.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6958521.609
5573540	5/6/1993	1270	1.07	1411.23	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6906138.199
5573540	5/21/1996	1270	1.07	1411.23	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6906138.199
5573540	5/12/2010	1270	1.07	1411.23	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6906138.199
5573540	5/13/2014	1270	1.07	1411.23	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6906138.199
5573540	6/12/1990	1270	1.07	1411.23	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6906138.199
5573540	6/2/2004	1270	1.07	1411.23	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6906138.199
5573540	6/9/2010	1270	1.07	1411.23	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6906138.199
5573540	6/30/2010	1270	1.07	1411.23	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6906138.199
5573540	7/1/1997	1270	1.07	1411.23	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6906138.199
5573540	7/11/2003	1270	1.07	1411.23	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6906138.199
5573540	8/31/2009	1270	1.07	1411.23	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6906138.199
5573540	9/3/2003	1270	1.07	1411.23	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6906138.199
5573540	10/27/2008	1270	1.07	1411.23	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6906138.199
5573540	10/8/2014	1270	1.07	1411.23	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6906138.199
5573540	5/13/2015	1260	1.07	1400.53	732	15.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6853754.788
5573540	6/22/2000	1260	1.07	1400.53	732	15.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6853754.788
5573540	7/11/2013	1260	1.07	1400.53	732	15.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6853754.788
5573540	9/17/2014	1260	1.07	1400.53	732	15.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6853754.788
5573540	5/15/1994	1250	1.07	1389.82	736	15.3814%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6801371.377

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/16/1996	1250	1.07	1389.82	736	15.3814%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6801371.377
5573540	6/20/2002	1250	1.07	1389.82	736	15.3814%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6801371.377
5573540	5/21/2014	1240	1.07	1379.12	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6748987.966
5573540	6/22/1996	1240	1.07	1379.12	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6748987.966
5573540	6/8/1999	1240	1.07	1379.12	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6748987.966
5573540	6/27/2000	1240	1.07	1379.12	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6748987.966
5573540	6/29/2011	1240	1.07	1379.12	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6748987.966
5573540	7/14/1993	1240	1.07	1379.12	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6748987.966
5573540	7/12/2003	1240	1.07	1379.12	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6748987.966
5573540	8/28/2002	1240	1.07	1379.12	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6748987.966
5573540	5/5/1991	1230	1.07	1368.41	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6696604.556
5573540	5/14/1991	1230	1.07	1368.41	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6696604.556
5573540	5/16/2003	1230	1.07	1368.41	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6696604.556
5573540	7/27/1990	1230	1.07	1368.41	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6696604.556
5573540	7/18/1993	1230	1.07	1368.41	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6696604.556
5573540	8/31/2004	1230	1.07	1368.41	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6696604.556
5573540	5/7/1991	1220	1.07	1357.71	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6644221.145
5573540	5/3/1993	1220	1.07	1357.71	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6644221.145
5573540	5/13/1994	1220	1.07	1357.71	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6644221.145
5573540	5/17/1998	1220	1.07	1357.71	753	15.7367%	Fecal_coliform	205	cfu/100mL	200	283.2	6810326.674	6644221.145
5573540	6/2/1997	1220	1.07	1357.71	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6644221.145
5573540	6/17/1999	1220	1.07	1357.71	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6644221.145
5573540	6/17/2011	1220	1.07	1357.71	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6644221.145
5573540	6/25/2013	1220	1.07	1357.71	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6644221.145
5573540	6/6/2014	1220	1.07	1357.71	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6644221.145
5573540	7/7/1998	1220	1.07	1357.71	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6644221.145
5573540	5/24/1996	1210	1.07	1347.01	763	15.9457%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6591837.734
5573540	5/29/1998	1210	1.07	1347.01	763	15.9457%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6591837.734
5573540	5/25/2008	1210	1.07	1347.01	763	15.9457%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6591837.734
5573540	5/6/2011	1210	1.07	1347.01	763	15.9457%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6591837.734
5573540	5/12/2009	1200	1.07	1336.30	767	16.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6539454.324
5573540	5/27/2013	1200	1.07	1336.30	767	16.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6539454.324
5573540	7/3/2013	1200	1.07	1336.30	767	16.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6539454.324
5573540	8/13/1993	1200	1.07	1336.30	767	16.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6539454.324
5573540	8/23/1993	1200	1.07	1336.30	767	16.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6539454.324
5573540	5/16/1994	1190	1.07	1325.60	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6487070.913
5573540	5/22/1996	1190	1.07	1325.60	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6487070.913
5573540	5/25/2004	1190	1.07	1325.60	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6487070.913
5573540	6/13/1990	1190	1.07	1325.60	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6487070.913
5573540	6/1/1997	1190	1.07	1325.60	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6487070.913
5573540	6/10/2015	1190	1.07	1325.60	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6487070.913
5573540	7/10/2003	1190	1.07	1325.60	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6487070.913
5573540	7/20/2010	1190	1.07	1325.60	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6487070.913
5573540	10/25/2008	1190	1.07	1325.60	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6487070.913
5573540	5/23/1996	1180	1.07	1314.89	781	16.3218%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6434687.502
5573540	5/31/1997	1180	1.07	1314.89	781	16.3218%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6434687.502

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/31/2000	1180	1.07	1314.89	781	16.3218%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6434687.502
5573540	5/8/2013	1180	1.07	1314.89	781	16.3218%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6434687.502
5573540	7/10/1998	1180	1.07	1314.89	781	16.3218%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6434687.502
5573540	5/31/1990	1170	1.07	1304.19	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6382304.091
5573540	5/31/2008	1170	1.07	1304.19	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6382304.091
5573540	5/25/2011	1170	1.07	1304.19	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6382304.091
5573540	6/12/1997	1170	1.07	1304.19	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6382304.091
5573540	7/16/1992	1170	1.07	1304.19	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6382304.091
5573540	7/5/2015	1170	1.07	1304.19	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6382304.091
5573540	10/26/2008	1170	1.07	1304.19	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6382304.091
5573540	5/27/1991	1160	1.07	1293.48	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6329920.681
5573540	5/18/1998	1160	1.07	1293.48	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6329920.681
5573540	5/26/2009	1160	1.07	1293.48	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6329920.681
5573540	5/20/2014	1160	1.07	1293.48	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6329920.681
5573540	6/15/1997	1160	1.07	1293.48	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6329920.681
5573540	6/16/1997	1160	1.07	1293.48	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6329920.681
5573540	6/19/2003	1160	1.07	1293.48	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6329920.681
5573540	7/18/2015	1160	1.07	1293.48	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6329920.681
5573540	10/28/2008	1160	1.07	1293.48	793	16.5726%	Fecal_coliform	1220	cfu/100mL	200	283.2	38612516.15	6329920.681
5573540	5/20/2011	1150	1.07	1282.78	802	16.7607%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6277537.27
5573540	8/3/1992	1150	1.07	1282.78	802	16.7607%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6277537.27
5573540	9/4/2003	1150	1.07	1282.78	802	16.7607%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6277537.27
5573540	5/8/1995	1140	1.07	1272.08	805	16.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6225153.859
5573540	5/17/2011	1140	1.07	1272.08	805	16.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6225153.859
5573540	6/14/1993	1140	1.07	1272.08	805	16.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6225153.859
5573540	6/24/1995	1140	1.07	1272.08	805	16.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6225153.859
5573540	6/25/2009	1130	1.07	1261.37	809	16.9070%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6172770.448
5573540	7/6/2009	1130	1.07	1261.37	809	16.9070%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6172770.448
5573540	5/6/1997	1120	1.07	1250.67	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6120387.038
5573540	5/26/2002	1120	1.07	1250.67	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6120387.038
5573540	5/30/2002	1120	1.07	1250.67	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6120387.038
5573540	7/7/1992	1120	1.07	1250.67	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6120387.038
5573540	7/11/1993	1120	1.07	1250.67	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6120387.038
5573540	7/7/2000	1120	1.07	1250.67	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6120387.038
5573540	7/23/2008	1120	1.07	1250.67	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6120387.038
5573540	7/1/2014	1120	1.07	1250.67	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6120387.038
5573540	8/20/1993	1120	1.07	1250.67	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6120387.038
5573540	9/2/2003	1120	1.07	1250.67	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6120387.038
5573540	5/10/1993	1110	1.07	1239.96	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6068003.627
5573540	6/11/1997	1110	1.07	1239.96	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6068003.627
5573540	6/12/1999	1110	1.07	1239.96	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6068003.627
5573540	6/1/2002	1110	1.07	1239.96	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6068003.627
5573540	6/6/2015	1110	1.07	1239.96	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6068003.627
5573540	7/8/1992	1110	1.07	1239.96	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6068003.627
5573540	7/5/2009	1110	1.07	1239.96	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6068003.627
5573540	7/1/2010	1110	1.07	1239.96	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6068003.627

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/13/1999	1110	1.07	1239.96	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6068003.627
5573540	5/11/1993	1100	1.07	1229.26	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6015620.216
5573540	5/21/1998	1100	1.07	1229.26	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6015620.216
5573540	5/26/2008	1100	1.07	1229.26	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6015620.216
5573540	5/17/2010	1100	1.07	1229.26	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6015620.216
5573540	5/18/2011	1100	1.07	1229.26	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6015620.216
5573540	6/18/1999	1100	1.07	1229.26	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6015620.216
5573540	7/12/2000	1100	1.07	1229.26	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6015620.216
5573540	7/10/2013	1100	1.07	1229.26	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6015620.216
5573540	10/28/2004	1100	1.07	1229.26	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6015620.216
5573540	5/25/2002	1090	1.07	1218.55	839	17.5340%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5963236.806
5573540	6/10/2011	1090	1.07	1218.55	839	17.5340%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5963236.806
5573540	6/20/2011	1090	1.07	1218.55	839	17.5340%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5963236.806
5573540	5/16/1999	1080	1.07	1207.85	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5910853.395
5573540	5/2/2013	1080	1.07	1207.85	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5910853.395
5573540	6/8/1997	1080	1.07	1207.85	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5910853.395
5573540	7/15/1992	1080	1.07	1207.85	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5910853.395
5573540	7/17/2003	1080	1.07	1207.85	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5910853.395
5573540	7/8/2015	1080	1.07	1207.85	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5910853.395
5573540	5/3/1996	1070	1.07	1197.15	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5858469.984
5573540	5/7/2011	1070	1.07	1197.15	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5858469.984
5573540	5/8/2011	1070	1.07	1197.15	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5858469.984
5573540	5/14/2015	1070	1.07	1197.15	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5858469.984
5573540	6/4/1993	1070	1.07	1197.15	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5858469.984
5573540	6/21/1996	1070	1.07	1197.15	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5858469.984
5573540	6/17/1997	1070	1.07	1197.15	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5858469.984
5573540	6/18/2003	1070	1.07	1197.15	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5858469.984
5573540	7/13/2013	1070	1.07	1197.15	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5858469.984
5573540	8/20/2006	1070	1.07	1197.15	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5858469.984
5573540	5/1/1995	1060	1.07	1186.44	858	17.9310%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5806086.573
5573540	5/27/2008	1060	1.07	1186.44	858	17.9310%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5806086.573
5573540	6/9/1997	1060	1.07	1186.44	858	17.9310%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5806086.573
5573540	6/10/1997	1060	1.07	1186.44	858	17.9310%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5806086.573
5573540	9/1/2004	1060	1.07	1186.44	858	17.9310%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5806086.573
5573540	5/27/2002	1050	1.07	1175.74	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5753703.163
5573540	5/16/2015	1050	1.07	1175.74	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5753703.163
5573540	6/7/1997	1050	1.07	1175.74	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5753703.163
5573540	6/16/2008	1050	1.07	1175.74	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5753703.163
5573540	6/15/2014	1050	1.07	1175.74	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5753703.163
5573540	9/15/2014	1050	1.07	1175.74	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5753703.163
5573540	10/19/1990	1050	1.07	1175.74	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5753703.163
5573540	5/28/1991	1040	1.07	1165.03	870	18.1818%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5701319.752
5573540	5/30/1997	1040	1.07	1165.03	870	18.1818%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5701319.752
5573540	5/24/2014	1040	1.07	1165.03	870	18.1818%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5701319.752
5573540	10/27/2001	1040	1.07	1165.03	870	18.1818%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5701319.752
5573540	5/5/1997	1030	1.07	1154.33	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5648936.341

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/8/1990	1030	1.07	1154.33	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5648936.341
5573540	6/10/1998	1030	1.07	1154.33	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5648936.341
5573540	6/12/2001	1030	1.07	1154.33	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5648936.341
5573540	7/8/2000	1030	1.07	1154.33	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5648936.341
5573540	10/30/2004	1030	1.07	1154.33	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5648936.341
5573540	5/9/1992	1020	1.07	1143.62	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5596552.93
5573540	5/7/1996	1020	1.07	1143.62	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5596552.93
5573540	5/13/2013	1020	1.07	1143.62	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5596552.93
5573540	5/14/2014	1020	1.07	1143.62	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5596552.93
5573540	6/9/1990	1020	1.07	1143.62	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5596552.93
5573540	6/30/1997	1020	1.07	1143.62	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5596552.93
5573540	5/15/1991	1010	1.07	1132.92	886	18.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5544169.52
5573540	6/27/1995	1010	1.07	1132.92	886	18.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5544169.52
5573540	6/4/1999	1010	1.07	1132.92	886	18.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5544169.52
5573540	6/28/2000	1010	1.07	1132.92	886	18.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5544169.52
5573540	10/20/2014	1010	1.07	1132.92	886	18.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5544169.52
5573540	5/1/1991	1000	1.07	1122.22	891	18.6207%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5491786.109
5573540	6/16/1995	996	1.07	1117.93	892	18.6416%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5470832.745
5573540	5/7/2003	995	1.07	1116.86	893	18.6625%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5465594.404
5573540	6/17/2008	993	1.07	1114.72	894	18.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5455117.721
5573540	6/21/2011	991	1.07	1112.58	895	18.7043%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5444641.039
5573540	6/4/1990	989	1.07	1110.44	896	18.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5434164.357
5573540	6/23/1993	985	1.07	1106.16	897	18.7461%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5413210.993
5573540	6/23/1995	984	1.07	1105.09	898	18.7670%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5407972.652
5573540	7/12/1993	984	1.07	1105.09	898	18.7670%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5407972.652
5573540	5/25/1996	982	1.07	1102.95	900	18.8088%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5397495.97
5573540	6/24/1993	982	1.07	1102.95	900	18.8088%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5397495.97
5573540	6/3/2009	980	1.07	1100.81	902	18.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5387019.288
5573540	5/22/2014	979	1.07	1099.74	903	18.8715%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5381780.946
5573540	6/28/2014	979	1.07	1099.74	903	18.8715%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5381780.946
5573540	7/21/1993	979	1.07	1099.74	903	18.8715%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5381780.946
5573540	6/19/1999	978	1.07	1098.67	906	18.9342%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5376542.605
5573540	6/26/1995	977	1.07	1097.60	907	18.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5371304.264
5573540	5/31/2015	976	1.07	1096.53	908	18.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5366065.923
5573540	5/15/2015	975	1.07	1095.46	909	18.9969%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5360827.582
5573540	6/24/2013	975	1.07	1095.46	909	18.9969%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5360827.582
5573540	10/22/1990	975	1.07	1095.46	909	18.9969%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5360827.582
5573540	5/30/2000	973	1.07	1093.31	912	19.0596%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5350350.9
5573540	5/30/1998	972	1.07	1092.24	913	19.0805%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5345112.559
5573540	10/9/2014	970	1.07	1090.10	914	19.1014%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5334635.877
5573540	5/24/2004	969	1.07	1089.03	915	19.1223%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5329397.536
5573540	5/16/2013	968	1.07	1087.96	916	19.1432%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5324159.195
5573540	6/15/2005	968	1.07	1087.96	916	19.1432%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5324159.195
5573540	6/13/2001	966	1.07	1085.82	918	19.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5313682.512
5573540	5/20/1998	962	1.07	1081.54	919	19.2059%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5292729.148
5573540	5/28/1997	961	1.07	1080.47	920	19.2268%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5287490.807

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/4/2009	960	1.07	1079.40	921	19.2476%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5282252.466
5573540	8/14/1993	958	1.07	1077.26	922	19.2685%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5271775.784
5573540	6/20/1996	956	1.07	1075.12	923	19.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5261299.102
5573540	6/8/2015	956	1.07	1075.12	923	19.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5261299.102
5573540	6/22/2011	955	1.07	1074.05	925	19.3312%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5256060.761
5573540	5/17/2003	954	1.07	1072.98	926	19.3521%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5250822.42
5573540	5/23/2014	953	1.07	1071.91	927	19.3730%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5245584.079
5573540	6/22/1993	953	1.07	1071.91	927	19.3730%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5245584.079
5573540	5/16/2010	950	1.07	1068.70	929	19.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5229869.055
5573540	6/7/2009	950	1.07	1068.70	929	19.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5229869.055
5573540	5/31/2014	949	1.07	1067.62	931	19.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5224630.714
5573540	5/27/2010	947	1.07	1065.48	932	19.4775%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5214154.032
5573540	6/6/2009	947	1.07	1065.48	932	19.4775%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5214154.032
5573540	6/5/2009	942	1.07	1060.13	934	19.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5187962.327
5573540	5/14/1999	941	1.07	1059.06	935	19.5402%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5182723.986
5573540	6/21/1993	940	1.07	1057.99	936	19.5611%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5177485.645
5573540	7/19/2008	940	1.07	1057.99	936	19.5611%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5177485.645
5573540	6/11/1993	939	1.07	1056.92	938	19.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5172247.304
5573540	10/13/2009	939	1.07	1056.92	938	19.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5172247.304
5573540	6/27/1999	935	1.07	1052.64	940	19.6447%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5151293.939
5573540	9/18/2014	934	1.07	1051.57	941	19.6656%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5146055.598
5573540	5/17/1993	932	1.07	1049.43	942	19.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5135578.916
5573540	6/5/1997	930	1.07	1047.29	943	19.7074%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5125102.234
5573540	10/30/2001	930	1.07	1047.29	943	19.7074%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5125102.234
5573540	5/6/2002	927	1.07	1044.08	945	19.7492%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5109387.211
5573540	5/29/2009	927	1.07	1044.08	945	19.7492%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5109387.211
5573540	6/23/2011	924	1.07	1040.86	947	19.7910%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5093672.187
5573540	6/2/2002	923	1.07	1039.79	948	19.8119%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5088433.846
5573540	5/30/2009	922	1.07	1038.72	949	19.8328%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5083195.505
5573540	8/1/1993	920	1.07	1036.58	950	19.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5072718.823
5573540	6/7/1990	919	1.07	1035.51	951	19.8746%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5067480.482
5573540	6/12/2009	919	1.07	1035.51	951	19.8746%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5067480.482
5573540	7/13/2004	917	1.07	1033.37	953	19.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5057003.8
5573540	6/13/1993	913	1.07	1029.09	954	19.9373%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036050.436
5573540	6/1/2000	913	1.07	1029.09	954	19.9373%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036050.436
5573540	7/19/2015	912	1.07	1028.02	956	19.9791%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5030812.095
5573540	5/13/1999	911	1.07	1026.95	957	20.0000%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5025573.753
5573540	5/9/2011	910	1.07	1025.88	958	20.0209%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5020335.412
5573540	6/3/1990	909	1.07	1024.81	959	20.0418%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5015097.071
5573540	6/21/2000	909	1.07	1024.81	959	20.0418%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5015097.071
5573540	7/21/2003	908	1.07	1023.74	961	20.0836%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5009858.73
5573540	6/9/1992	905	1.07	1020.53	962	20.1045%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4994143.707
5573540	9/22/1993	905	1.07	1020.53	962	20.1045%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4994143.707
5573540	10/14/2009	904	1.07	1019.46	964	20.1463%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4988905.366
5573540	7/27/1996	903	1.07	1018.39	965	20.1672%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4983667.025
5573540	6/6/1995	902	1.07	1017.31	966	20.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4978428.684

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/17/1996	902	1.07	1017.31	966	20.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4978428.684
5573540	7/11/1998	902	1.07	1017.31	966	20.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4978428.684
5573540	5/1/1999	901	1.07	1016.24	969	20.2508%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4973190.343
5573540	10/20/1990	900	1.07	1015.17	970	20.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4967952.002
5573540	6/26/2009	899	1.07	1014.10	971	20.2926%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4962713.661
5573540	7/10/2004	895	1.07	1009.82	972	20.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4941760.296
5573540	9/2/2009	895	1.07	1009.82	972	20.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4941760.296
5573540	6/19/1996	894	1.07	1008.75	974	20.3553%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4936521.955
5573540	5/4/2006	893	1.07	1007.68	975	20.3762%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4931283.614
5573540	5/4/1997	892	1.07	1006.61	976	20.3971%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4926045.273
5573540	6/9/1998	891	1.07	1005.54	977	20.4180%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4920806.932
5573540	8/28/2006	891	1.07	1005.54	977	20.4180%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4920806.932
5573540	10/5/1993	891	1.07	1005.54	977	20.4180%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4920806.932
5573540	10/18/2006	889	1.07	1003.40	980	20.4807%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4910330.25
5573540	6/8/2010	888	1.07	1002.33	981	20.5016%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4905091.909
5573540	10/29/2004	888	1.07	1002.33	981	20.5016%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4905091.909
5573540	5/31/2009	887	1.07	1001.26	983	20.5434%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4899853.568
5573540	5/7/1997	885	1.07	999.12	984	20.5643%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4889376.886
5573540	5/29/2002	885	1.07	999.12	984	20.5643%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4889376.886
5573540	5/31/2002	883	1.07	996.98	986	20.6061%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4878900.203
5573540	5/17/2015	882	1.07	995.91	987	20.6270%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4873661.862
5573540	6/25/1995	880	1.07	993.77	988	20.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4863185.18
5573540	5/18/2003	876	1.07	989.48	989	20.6688%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4842231.816
5573540	5/27/2009	872	1.07	985.20	990	20.6897%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4821278.452
5573540	6/1/1998	868	1.07	980.92	991	20.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4800325.087
5573540	6/27/2009	868	1.07	980.92	991	20.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4800325.087
5573540	7/25/1993	868	1.07	980.92	991	20.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4800325.087
5573540	7/4/2013	868	1.07	980.92	991	20.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4800325.087
5573540	5/8/2003	867	1.07	979.85	995	20.7941%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4795086.746
5573540	6/28/1995	867	1.07	979.85	995	20.7941%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4795086.746
5573540	5/15/1999	866	1.07	978.78	997	20.8359%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4789848.405
5573540	5/6/1999	865	1.07	977.71	998	20.8568%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4784610.064
5573540	5/21/2013	865	1.07	977.71	998	20.8568%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4784610.064
5573540	8/30/2009	863	1.07	975.57	1000	20.8986%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4774133.382
5573540	9/25/2008	863	1.07	975.57	1000	20.8986%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4774133.382
5573540	6/11/2002	861	1.07	973.43	1002	20.9404%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4763656.7
5573540	6/25/1999	860	1.07	972.36	1003	20.9613%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4758418.359
5573540	5/17/1994	857	1.07	969.15	1004	20.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4742703.336
5573540	6/15/2000	857	1.07	969.15	1004	20.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4742703.336
5573540	7/13/1993	856	1.07	968.08	1006	21.0240%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4737464.994
5573540	7/5/1998	856	1.07	968.08	1006	21.0240%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4737464.994
5573540	6/14/2011	855	1.07	967.00	1008	21.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4732226.653
5573540	7/22/2003	855	1.07	967.00	1008	21.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4732226.653
5573540	5/15/2010	854	1.07	965.93	1010	21.1076%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4726988.312
5573540	10/21/2006	854	1.07	965.93	1010	21.1076%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4726988.312
5573540	5/14/2011	853	1.07	964.86	1012	21.1494%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4721749.971

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/23/2013	853	1.07	964.86	1012	21.1494%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4721749.971
5573540	7/23/1993	851	1.07	962.72	1014	21.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4711273.289
5573540	5/28/2002	849	1.07	960.58	1015	21.2121%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4700796.607
5573540	6/6/2002	848	1.07	959.51	1016	21.2330%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4695558.266
5573540	6/9/1991	847	1.07	958.44	1017	21.2539%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4690319.925
5573540	6/1/1990	845	1.07	956.30	1018	21.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4679843.243
5573540	8/22/1993	845	1.07	956.30	1018	21.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4679843.243
5573540	8/24/1993	843	1.07	954.16	1020	21.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4669366.561
5573540	7/6/1998	842	1.07	953.09	1021	21.3375%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4664128.219
5573540	5/19/1994	841	1.07	952.02	1022	21.3584%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4658889.878
5573540	7/14/2006	839	1.07	949.88	1023	21.3793%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4648413.196
5573540	6/28/1999	838	1.07	948.81	1024	21.4002%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4643174.855
5573540	5/2/1999	835	1.07	945.60	1025	21.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4627459.832
5573540	5/5/2008	835	1.07	945.60	1025	21.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4627459.832
5573540	6/8/2009	835	1.07	945.60	1025	21.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4627459.832
5573540	5/28/2010	834	1.07	944.53	1028	21.4838%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4622221.491
5573540	7/2/2010	834	1.07	944.53	1028	21.4838%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4622221.491
5573540	5/26/1991	833	1.07	943.46	1030	21.5256%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4616983.15
5573540	5/25/1994	830	1.07	940.24	1031	21.5465%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4601268.127
5573540	9/21/1993	830	1.07	940.24	1031	21.5465%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4601268.127
5573540	10/18/2009	829	1.07	939.17	1033	21.5883%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4596029.786
5573540	5/21/2011	828	1.07	938.10	1034	21.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4590791.444
5573540	6/11/2009	828	1.07	938.10	1034	21.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4590791.444
5573540	7/14/2013	828	1.07	938.10	1034	21.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4590791.444
5573540	5/3/1990	827	1.07	937.03	1037	21.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4585553.103
5573540	6/18/1996	827	1.07	937.03	1037	21.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4585553.103
5573540	6/24/2004	826	1.07	935.96	1039	21.7137%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4580314.762
5573540	6/11/2001	822	1.07	931.68	1040	21.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4559361.398
5573540	6/6/1997	820	1.07	929.54	1041	21.7555%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4548884.716
5573540	5/22/2013	818	1.07	927.40	1042	21.7764%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4538408.034
5573540	5/4/1991	814	1.07	923.12	1043	21.7973%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4517454.669
5573540	6/8/2011	814	1.07	923.12	1043	21.7973%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4517454.669
5573540	10/21/2014	814	1.07	923.12	1043	21.7973%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4517454.669
5573540	5/3/1995	813	1.07	922.05	1046	21.8600%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4512216.328
5573540	6/18/1997	813	1.07	922.05	1046	21.8600%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4512216.328
5573540	5/11/2010	812	1.07	920.98	1048	21.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4506977.987
5573540	6/6/1990	812	1.07	920.98	1048	21.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4506977.987
5573540	7/1/2011	811	1.07	919.91	1050	21.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4501739.646
5573540	6/3/2010	810	1.07	918.84	1051	21.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4496501.305
5573540	5/3/2006	809	1.07	917.77	1052	21.9854%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4491262.964
5573540	6/26/1993	809	1.07	917.77	1052	21.9854%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4491262.964
5573540	6/7/2002	809	1.07	917.77	1052	21.9854%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4491262.964
5573540	10/7/2000	804	1.07	912.41	1055	22.0481%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4465071.259
5573540	5/29/1997	802	1.07	910.27	1056	22.0690%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4454594.577
5573540	5/8/2012	801	1.07	909.20	1057	22.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4449356.236
5573540	5/25/2010	800	1.07	908.13	1058	22.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4444117.894

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/30/2011	800	1.07	908.13	1058	22.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4444117.894
5573540	7/1/2007	798	1.07	905.99	1060	22.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4433641.212
5573540	5/6/2008	797	1.07	904.92	1061	22.1735%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4428402.871
5573540	5/6/2003	796	1.07	903.85	1062	22.1944%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4423164.53
5573540	6/1/1993	795	1.07	902.78	1063	22.2153%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4417926.189
5573540	8/1/2006	795	1.07	902.78	1063	22.2153%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4417926.189
5573540	6/28/2009	793	1.07	900.64	1065	22.2571%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4407449.507
5573540	6/19/2008	789	1.07	896.36	1066	22.2780%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4386496.143
5573540	6/2/2000	788	1.07	895.29	1067	22.2989%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4381257.802
5573540	6/8/2002	788	1.07	895.29	1067	22.2989%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4381257.802
5573540	6/2/1990	787	1.07	894.22	1069	22.3406%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4376019.46
5573540	6/2/2010	787	1.07	894.22	1069	22.3406%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4376019.46
5573540	6/29/1999	786	1.07	893.15	1071	22.3824%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4370781.119
5573540	7/13/2000	786	1.07	893.15	1071	22.3824%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4370781.119
5573540	6/30/2007	785	1.07	892.07	1073	22.4242%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4365542.778
5573540	7/16/2004	784	1.07	891.00	1074	22.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4360304.437
5573540	5/22/1998	782	1.07	888.86	1075	22.4660%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4349827.755
5573540	7/19/1992	782	1.07	888.86	1075	22.4660%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4349827.755
5573540	5/12/1993	780	1.07	886.72	1077	22.5078%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4339351.073
5573540	10/20/2001	780	1.07	886.72	1077	22.5078%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4339351.073
5573540	5/1/2006	779	1.07	885.65	1079	22.5496%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4334112.732
5573540	7/22/1993	779	1.07	885.65	1079	22.5496%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4334112.732
5573540	5/31/2010	776	1.07	882.44	1081	22.5914%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4318397.709
5573540	7/15/2004	775	1.07	881.37	1082	22.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4313159.368
5573540	5/24/2013	772	1.07	878.16	1083	22.6332%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4297444.344
5573540	6/9/2013	772	1.07	878.16	1083	22.6332%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4297444.344
5573540	7/9/2014	772	1.07	878.16	1083	22.6332%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4297444.344
5573540	5/2/2006	771	1.07	877.09	1086	22.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4292206.003
5573540	5/26/1994	770	1.07	876.02	1087	22.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4286967.662
5573540	5/30/2010	770	1.07	876.02	1087	22.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4286967.662
5573540	6/3/1997	770	1.07	876.02	1087	22.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4286967.662
5573540	7/12/2013	769	1.07	874.95	1090	22.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4281729.321
5573540	5/28/2009	765	1.07	870.67	1091	22.8004%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4260775.957
5573540	6/11/1999	763	1.07	868.53	1092	22.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4250299.275
5573540	6/13/2009	763	1.07	868.53	1092	22.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4250299.275
5573540	6/10/2004	762	1.07	867.45	1094	22.8631%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4245060.934
5573540	6/24/2011	762	1.07	867.45	1094	22.8631%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4245060.934
5573540	5/28/2008	759	1.07	864.24	1096	22.9049%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4229345.91
5573540	6/9/2002	759	1.07	864.24	1096	22.9049%	Fecal_coliform	180	cfu/100mL	200	283.2	3806411.319	4229345.91
5573540	6/5/2010	758	1.07	863.17	1098	22.9467%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4224107.569
5573540	9/24/2008	758	1.07	863.17	1098	22.9467%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4224107.569
5573540	7/11/1990	757	1.07	862.10	1100	22.9885%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4218869.228
5573540	7/27/2010	756	1.07	861.03	1101	23.0094%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4213630.887
5573540	5/18/1993	753	1.07	857.82	1102	23.0303%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4197915.864
5573540	7/1/2008	753	1.07	857.82	1102	23.0303%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4197915.864
5573540	6/5/1998	751	1.07	855.68	1104	23.0721%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4187439.182

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/25/2007	751	1.07	855.68	1104	23.0721%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4187439.182
5573540	6/1/2010	750	1.07	854.61	1106	23.1139%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4182200.841
5573540	7/14/2004	750	1.07	854.61	1106	23.1139%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4182200.841
5573540	8/8/1995	750	1.07	854.61	1106	23.1139%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4182200.841
5573540	6/4/2010	749	1.07	853.54	1109	23.1766%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4176962.5
5573540	7/3/2008	749	1.07	853.54	1109	23.1766%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4176962.5
5573540	5/20/1994	748	1.07	852.47	1111	23.2184%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4171724.159
5573540	6/20/2003	748	1.07	852.47	1111	23.2184%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4171724.159
5573540	6/4/1991	747	1.07	851.40	1113	23.2602%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4166485.818
5573540	6/5/2001	747	1.07	851.40	1113	23.2602%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4166485.818
5573540	7/12/2004	747	1.07	851.40	1113	23.2602%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4166485.818
5573540	6/13/2011	746	1.07	850.33	1116	23.3229%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4161247.477
5573540	5/17/1999	745	1.07	849.26	1117	23.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4156009.135
5573540	5/26/2010	745	1.07	849.26	1117	23.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4156009.135
5573540	5/18/2015	745	1.07	849.26	1117	23.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4156009.135
5573540	6/25/1993	744	1.07	848.19	1120	23.4065%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4150770.794
5573540	5/5/2006	743	1.07	847.12	1121	23.4274%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4145532.453
5573540	5/8/2008	742	1.07	846.05	1122	23.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4140294.112
5573540	6/29/2014	742	1.07	846.05	1122	23.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4140294.112
5573540	8/29/2002	741	1.07	844.98	1124	23.4901%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4135055.771
5573540	10/21/1990	741	1.07	844.98	1124	23.4901%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4135055.771
5573540	7/22/2013	739	1.07	842.84	1126	23.5319%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4124579.089
5573540	5/31/1998	737	1.07	840.69	1127	23.5528%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4114102.407
5573540	6/6/2010	734	1.07	837.48	1128	23.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4098387.384
5573540	10/8/1993	734	1.07	837.48	1128	23.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4098387.384
5573540	6/30/1999	732	1.07	835.34	1130	23.6155%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4087910.701
5573540	5/25/2014	731	1.07	834.27	1131	23.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4082672.36
5573540	5/5/1999	730	1.07	833.20	1132	23.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4077434.019
5573540	5/30/2008	730	1.07	833.20	1132	23.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4077434.019
5573540	8/15/1993	730	1.07	833.20	1132	23.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4077434.019
5573540	5/15/2013	728	1.07	831.06	1135	23.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4066957.337
5573540	7/24/1993	728	1.07	831.06	1135	23.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4066957.337
5573540	5/21/1994	723	1.07	825.71	1137	23.7618%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4040765.632
5573540	6/4/1997	719	1.07	821.43	1138	23.7827%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4019812.268
5573540	6/10/2013	719	1.07	821.43	1138	23.7827%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4019812.268
5573540	7/20/2008	719	1.07	821.43	1138	23.7827%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4019812.268
5573540	6/7/2010	718	1.07	820.36	1141	23.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4014573.926
5573540	10/20/2006	718	1.07	820.36	1141	23.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4014573.926
5573540	5/3/1997	717	1.07	819.29	1143	23.8871%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4009335.585
5573540	5/21/2003	717	1.07	819.29	1143	23.8871%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4009335.585
5573540	6/12/1993	717	1.07	819.29	1143	23.8871%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4009335.585
5573540	5/9/2003	716	1.07	818.22	1146	23.9498%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4004097.244
5573540	8/4/1992	716	1.07	818.22	1146	23.9498%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4004097.244
5573540	6/24/2007	715	1.07	817.14	1148	23.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3998858.903
5573540	7/28/1996	715	1.07	817.14	1148	23.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3998858.903
5573540	5/13/1991	713	1.07	815.00	1150	24.0334%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3988382.221

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/22/2006	712	1.07	813.93	1151	24.0543%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3983143.88
5573540	6/21/2002	711	1.07	812.86	1152	24.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3977905.539
5573540	6/29/2007	711	1.07	812.86	1152	24.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3977905.539
5573540	9/14/1993	711	1.07	812.86	1152	24.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3977905.539
5573540	6/22/2002	710	1.07	811.79	1155	24.1379%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3972667.198
5573540	7/11/2000	710	1.07	811.79	1155	24.1379%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3972667.198
5573540	7/17/1992	709	1.07	810.72	1157	24.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3967428.857
5573540	5/10/2010	708	1.07	809.65	1158	24.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3962190.516
5573540	6/10/1999	708	1.07	809.65	1158	24.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3962190.516
5573540	7/26/1996	708	1.07	809.65	1158	24.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3962190.516
5573540	9/26/2008	708	1.07	809.65	1158	24.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3962190.516
5573540	6/5/1990	706	1.07	807.51	1162	24.2842%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3951713.834
5573540	7/10/2009	705	1.07	806.44	1163	24.3051%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3946475.493
5573540	7/2/2011	705	1.07	806.44	1163	24.3051%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3946475.493
5573540	6/8/2004	704	1.07	805.37	1165	24.3469%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3941237.151
5573540	8/25/1993	704	1.07	805.37	1165	24.3469%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3941237.151
5573540	7/18/1992	702	1.07	803.23	1167	24.3887%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3930760.469
5573540	7/23/2003	702	1.07	803.23	1167	24.3887%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3930760.469
5573540	5/24/1992	701	1.07	802.16	1169	24.4305%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3925522.128
5573540	5/2/2010	701	1.07	802.16	1169	24.4305%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3925522.128
5573540	6/1/2009	700	1.07	801.09	1171	24.4723%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3920283.787
5573540	6/14/2009	700	1.07	801.09	1171	24.4723%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3920283.787
5573540	6/1/2014	700	1.07	801.09	1171	24.4723%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3920283.787
5573540	6/25/2004	699	1.07	800.02	1174	24.5350%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3915045.446
5573540	6/23/2008	698	1.07	798.95	1175	24.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3909807.105
5573540	7/7/1990	698	1.07	798.95	1175	24.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3909807.105
5573540	5/15/2011	695	1.07	795.74	1177	24.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3894092.082
5573540	7/29/2008	694	1.07	794.67	1178	24.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3888853.741
5573540	6/4/1998	693	1.07	793.60	1179	24.6395%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3883615.4
5573540	8/5/1992	693	1.07	793.60	1179	24.6395%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3883615.4
5573540	5/15/2006	692	1.07	792.53	1181	24.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3878377.059
5573540	10/29/2008	691	1.07	791.45	1182	24.7022%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3873138.718
5573540	9/5/2003	690	1.07	790.38	1183	24.7231%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3867900.376
5573540	6/22/2008	689	1.07	789.31	1184	24.7440%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3862662.035
5573540	10/21/2004	688	1.07	788.24	1185	24.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3857423.694
5573540	5/7/2012	686	1.07	786.10	1186	24.7858%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3846947.012
5573540	6/20/2008	686	1.07	786.10	1186	24.7858%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3846947.012
5573540	7/11/2009	686	1.07	786.10	1186	24.7858%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3846947.012
5573540	5/10/2012	684	1.07	783.96	1189	24.8485%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3836470.33
5573540	6/25/2011	684	1.07	783.96	1189	24.8485%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3836470.33
5573540	5/23/2008	683	1.07	782.89	1191	24.8903%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3831231.989
5573540	6/29/2000	683	1.07	782.89	1191	24.8903%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3831231.989
5573540	5/4/1990	681	1.07	780.75	1193	24.9321%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3820755.307
5573540	5/29/2010	681	1.07	780.75	1193	24.9321%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3820755.307
5573540	7/7/2009	681	1.07	780.75	1193	24.9321%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3820755.307
5573540	5/6/2006	679	1.07	778.61	1196	24.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3810278.625

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/22/2014	679	1.07	778.61	1196	24.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3810278.625
5573540	6/26/2011	677	1.07	776.47	1198	25.0366%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3799801.942
5573540	6/17/2013	677	1.07	776.47	1198	25.0366%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3799801.942
5573540	6/2/1994	675	1.07	774.33	1200	25.0784%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3789325.26
5573540	5/27/1997	674	1.07	773.26	1201	25.0993%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3784086.919
5573540	6/3/1998	674	1.07	773.26	1201	25.0993%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3784086.919
5573540	5/7/2006	673	1.07	772.19	1203	25.1411%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3778848.578
5573540	6/14/1994	673	1.07	772.19	1203	25.1411%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3778848.578
5573540	6/14/2000	670	1.07	768.98	1205	25.1829%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3763133.555
5573540	7/12/1990	670	1.07	768.98	1205	25.1829%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3763133.555
5573540	5/4/1995	669	1.07	767.91	1207	25.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3757895.214
5573540	5/9/2012	669	1.07	767.91	1207	25.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3757895.214
5573540	7/4/2008	669	1.07	767.91	1207	25.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3757895.214
5573540	6/9/2009	668	1.07	766.83	1210	25.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3752656.873
5573540	7/17/2004	668	1.07	766.83	1210	25.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3752656.873
5573540	5/22/2011	667	1.07	765.76	1212	25.3292%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3747418.532
5573540	6/2/1998	667	1.07	765.76	1212	25.3292%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3747418.532
5573540	7/12/2014	667	1.07	765.76	1212	25.3292%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3747418.532
5573540	5/1/2010	665	1.07	763.62	1215	25.3918%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3736941.85
5573540	6/20/2013	665	1.07	763.62	1215	25.3918%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3736941.85
5573540	7/9/1990	665	1.07	763.62	1215	25.3918%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3736941.85
5573540	5/16/2006	664	1.07	762.55	1218	25.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3731703.509
5573540	10/27/2004	664	1.07	762.55	1218	25.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3731703.509
5573540	5/19/1999	662	1.07	760.41	1220	25.4963%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3721226.826
5573540	7/23/1998	662	1.07	760.41	1220	25.4963%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3721226.826
5573540	7/27/2008	659	1.07	757.20	1222	25.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3705511.803
5573540	6/20/1999	658	1.07	756.13	1223	25.5590%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3700273.462
5573540	6/19/2013	658	1.07	756.13	1223	25.5590%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3700273.462
5573540	7/14/1990	658	1.07	756.13	1223	25.5590%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3700273.462
5573540	5/22/1994	655	1.07	752.92	1226	25.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3684558.439
5573540	6/23/1996	654	1.07	751.85	1227	25.6426%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3679320.098
5573540	9/19/2014	654	1.07	751.85	1227	25.6426%	Fecal_coliform	580	cfu/100mL	200	283.2	10670028.28	3679320.098
5573540	5/14/1994	653	1.07	750.78	1229	25.6844%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3674081.757
5573540	6/29/1995	653	1.07	750.78	1229	25.6844%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3674081.757
5573540	5/11/2012	652	1.07	749.71	1231	25.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3668843.416
5573540	6/3/2006	652	1.07	749.71	1231	25.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3668843.416
5573540	5/13/1993	651	1.07	748.64	1233	25.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3663605.075
5573540	5/20/1999	651	1.07	748.64	1233	25.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3663605.075
5573540	6/21/2008	651	1.07	748.64	1233	25.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3663605.075
5573540	6/1/1991	650	1.07	747.57	1236	25.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3658366.734
5573540	6/23/2002	650	1.07	747.57	1236	25.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3658366.734
5573540	7/9/2009	649	1.07	746.50	1238	25.8725%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3653128.392
5573540	10/25/2006	649	1.07	746.50	1238	25.8725%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3653128.392
5573540	7/12/2009	648	1.07	745.43	1240	25.9143%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3647890.051
5573540	6/24/1996	647	1.07	744.36	1241	25.9352%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3642651.71
5573540	10/13/2014	647	1.07	744.36	1241	25.9352%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3642651.71

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/29/2008	646	1.07	743.29	1243	25.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3637413.369
5573540	10/19/2009	644	1.07	741.14	1244	25.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3626936.687
5573540	6/2/2009	642	1.07	739.00	1245	26.0188%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3616460.005
5573540	6/16/2013	642	1.07	739.00	1245	26.0188%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3616460.005
5573540	5/5/2003	640	1.07	736.86	1247	26.0606%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3605983.323
5573540	5/8/1997	638	1.07	734.72	1248	26.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3595506.641
5573540	6/16/2000	638	1.07	734.72	1248	26.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3595506.641
5573540	6/10/2009	638	1.07	734.72	1248	26.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3595506.641
5573540	6/15/2009	638	1.07	734.72	1248	26.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3595506.641
5573540	9/1/2009	638	1.07	734.72	1248	26.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3595506.641
5573540	9/4/2010	637	1.07	733.65	1253	26.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3590268.3
5573540	9/20/2014	637	1.07	733.65	1253	26.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3590268.3
5573540	5/8/2006	636	1.07	732.58	1255	26.2278%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3585029.959
5573540	7/3/2010	635	1.07	731.51	1256	26.2487%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3579791.617
5573540	10/10/2014	635	1.07	731.51	1256	26.2487%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3579791.617
5573540	8/21/1993	634	1.07	730.44	1258	26.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3574553.276
5573540	6/2/1991	632	1.07	728.30	1259	26.3114%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3564076.594
5573540	6/11/2013	632	1.07	728.30	1259	26.3114%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3564076.594
5573540	7/5/2013	632	1.07	728.30	1259	26.3114%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3564076.594
5573540	6/30/2008	630	1.07	726.16	1262	26.3741%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3553599.912
5573540	7/14/1998	630	1.07	726.16	1262	26.3741%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3553599.912
5573540	5/9/1990	629	1.07	725.09	1264	26.4159%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3548361.571
5573540	7/21/2010	628	1.07	724.02	1265	26.4368%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3543123.23
5573540	6/6/1998	627	1.07	722.95	1266	26.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3537884.889
5573540	7/21/2008	627	1.07	722.95	1266	26.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3537884.889
5573540	5/26/2013	626	1.07	721.88	1268	26.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3532646.548
5573540	7/3/2011	626	1.07	721.88	1268	26.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3532646.548
5573540	7/2/2007	625	1.07	720.81	1270	26.5413%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3527408.207
5573540	6/17/2009	624	1.07	719.74	1271	26.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3522169.866
5573540	10/12/2009	624	1.07	719.74	1271	26.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3522169.866
5573540	6/29/2009	621	1.07	716.52	1273	26.6040%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3506454.842
5573540	7/4/2009	619	1.07	714.38	1274	26.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3495978.16
5573540	9/13/2008	619	1.07	714.38	1274	26.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3495978.16
5573540	5/4/2007	618	1.07	713.31	1276	26.6667%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3490739.819
5573540	10/24/2001	617	1.07	712.24	1277	26.6876%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3485501.478
5573540	6/3/2000	616	1.07	711.17	1278	26.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3480263.137
5573540	9/24/2014	616	1.07	711.17	1278	26.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3480263.137
5573540	5/20/2013	615	1.07	710.10	1280	26.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3475024.796
5573540	6/18/2013	615	1.07	710.10	1280	26.7503%	Fecal_coliform	2280	cfu/100mL	200	283.2	39615282.67	3475024.796
5573540	10/7/1993	614	1.07	709.03	1282	26.7921%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3469786.455
5573540	5/19/2003	613	1.07	707.96	1283	26.8130%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3464548.114
5573540	8/30/2006	613	1.07	707.96	1283	26.8130%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3464548.114
5573540	5/19/1998	610	1.07	704.75	1285	26.8548%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3448833.091
5573540	5/20/2003	610	1.07	704.75	1285	26.8548%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3448833.091
5573540	5/7/1999	608	1.07	702.61	1287	26.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3438356.408
5573540	5/10/1999	608	1.07	702.61	1287	26.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3438356.408

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/27/2004	607	1.07	701.54	1289	26.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3433118.067
5573540	6/27/1997	605	1.07	699.40	1290	26.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3422641.385
5573540	9/21/2014	605	1.07	699.40	1290	26.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3422641.385
5573540	7/28/1990	604	1.07	698.33	1292	27.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3417403.044
5573540	10/9/2008	603	1.07	697.26	1293	27.0219%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3412164.703
5573540	6/13/2013	602	1.07	696.19	1294	27.0428%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3406926.362
5573540	6/7/2015	601	1.07	695.12	1295	27.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3401688.021
5573540	6/9/1994	600	1.07	694.05	1296	27.0846%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3396449.68
5573540	6/26/2004	599	1.07	692.98	1297	27.1055%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3391211.339
5573540	6/28/2004	599	1.07	692.98	1297	27.1055%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3391211.339
5573540	9/25/2014	599	1.07	692.98	1297	27.1055%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3391211.339
5573540	10/24/2008	599	1.07	692.98	1297	27.1055%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3391211.339
5573540	5/8/2010	598	1.07	691.91	1301	27.1891%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3385972.998
5573540	7/25/2008	598	1.07	691.91	1301	27.1891%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3385972.998
5573540	5/18/1994	596	1.07	689.76	1303	27.2309%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3375496.316
5573540	5/30/2014	596	1.07	689.76	1303	27.2309%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3375496.316
5573540	6/16/2009	596	1.07	689.76	1303	27.2309%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3375496.316
5573540	5/2/1991	595	1.07	688.69	1306	27.2936%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3370257.975
5573540	6/21/1997	595	1.07	688.69	1306	27.2936%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3370257.975
5573540	10/17/2009	594	1.07	687.62	1308	27.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3365019.633
5573540	7/13/1998	593	1.07	686.55	1309	27.3563%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3359781.292
5573540	8/5/1998	592	1.07	685.48	1310	27.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3354542.951
5573540	5/1/2004	590	1.07	683.34	1311	27.3981%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3344066.269
5573540	10/22/2004	590	1.07	683.34	1311	27.3981%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3344066.269
5573540	6/23/1999	589	1.07	682.27	1313	27.4399%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3338827.928
5573540	6/26/2007	589	1.07	682.27	1313	27.4399%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3338827.928
5573540	8/3/1993	589	1.07	682.27	1313	27.4399%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3338827.928
5573540	5/7/2008	588	1.07	681.20	1316	27.5026%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3333589.587
5573540	7/13/1990	588	1.07	681.20	1316	27.5026%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3333589.587
5573540	5/3/1999	587	1.07	680.13	1318	27.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3328351.246
5573540	5/23/1999	587	1.07	680.13	1318	27.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3328351.246
5573540	7/9/2000	585	1.07	677.99	1320	27.5862%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3317874.564
5573540	6/25/1996	584	1.07	676.92	1321	27.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3312636.223
5573540	7/15/2013	584	1.07	676.92	1321	27.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3312636.223
5573540	5/2/2014	583	1.07	675.85	1323	27.6489%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3307397.882
5573540	6/3/2002	583	1.07	675.85	1323	27.6489%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3307397.882
5573540	7/13/2009	583	1.07	675.85	1323	27.6489%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3307397.882
5573540	5/11/1999	581	1.07	673.71	1326	27.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3296921.2
5573540	5/7/2010	581	1.07	673.71	1326	27.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3296921.2
5573540	8/12/1995	581	1.07	673.71	1326	27.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3296921.2
5573540	6/7/1995	580	1.07	672.64	1329	27.7743%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3291682.858
5573540	6/25/1994	579	1.07	671.57	1330	27.7952%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3286444.517
5573540	6/14/2001	578	1.07	670.50	1331	27.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3281206.176
5573540	6/30/2014	578	1.07	670.50	1331	27.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3281206.176
5573540	6/6/2000	577	1.07	669.43	1333	27.8579%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3275967.835
5573540	5/3/2014	575	1.07	667.29	1334	27.8788%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3265491.153

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/15/1990	575	1.07	667.29	1334	27.8788%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3265491.153
5573540	9/5/2010	575	1.07	667.29	1334	27.8788%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3265491.153
5573540	10/19/2006	575	1.07	667.29	1334	27.8788%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3265491.153
5573540	8/7/1995	574	1.07	666.21	1338	27.9624%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3260252.812
5573540	7/4/2011	573	1.07	665.14	1339	27.9833%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3255014.471
5573540	5/14/1993	572	1.07	664.07	1340	28.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3249776.13
5573540	5/20/2006	572	1.07	664.07	1340	28.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3249776.13
5573540	5/3/2010	571	1.07	663.00	1342	28.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3244537.789
5573540	6/18/2014	571	1.07	663.00	1342	28.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3244537.789
5573540	8/9/1993	571	1.07	663.00	1342	28.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3244537.789
5573540	5/14/2006	570	1.07	661.93	1345	28.1087%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3239299.448
5573540	6/20/1997	570	1.07	661.93	1345	28.1087%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3239299.448
5573540	5/19/2006	569	1.07	660.86	1347	28.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3234061.107
5573540	6/10/1995	569	1.07	660.86	1347	28.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3234061.107
5573540	10/24/2006	569	1.07	660.86	1347	28.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3234061.107
5573540	5/24/2011	568	1.07	659.79	1350	28.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3228822.766
5573540	7/1/1999	568	1.07	659.79	1350	28.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3228822.766
5573540	5/31/1991	567	1.07	658.72	1352	28.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3223584.424
5573540	7/18/2004	567	1.07	658.72	1352	28.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3223584.424
5573540	6/18/2000	566	1.07	657.65	1354	28.2968%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3218346.083
5573540	5/15/2000	565	1.07	656.58	1355	28.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3213107.742
5573540	7/2/1999	565	1.07	656.58	1355	28.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3213107.742
5573540	5/17/2013	564	1.07	655.51	1357	28.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3207869.401
5573540	6/22/1991	562	1.07	653.37	1358	28.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3197392.719
5573540	5/30/1991	561	1.07	652.30	1359	28.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3192154.378
5573540	5/9/2010	561	1.07	652.30	1359	28.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3192154.378
5573540	5/18/2006	560	1.07	651.23	1361	28.4431%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3186916.037
5573540	5/11/1990	559	1.07	650.16	1362	28.4639%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3181677.696
5573540	5/17/2006	559	1.07	650.16	1362	28.4639%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3181677.696
5573540	6/8/1992	559	1.07	650.16	1362	28.4639%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3181677.696
5573540	5/12/2012	558	1.07	649.09	1365	28.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3176439.355
5573540	7/4/2010	558	1.07	649.09	1365	28.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3176439.355
5573540	7/7/2015	558	1.07	649.09	1365	28.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3176439.355
5573540	9/21/2015	558	1.07	649.09	1365	28.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3176439.355
5573540	6/26/2002	557	1.07	648.02	1369	28.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3171201.014
5573540	9/1/2006	557	1.07	648.02	1369	28.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3171201.014
5573540	6/29/2004	556	1.07	646.95	1371	28.6520%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3165962.673
5573540	6/14/2013	556	1.07	646.95	1371	28.6520%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3165962.673
5573540	5/10/2011	555	1.07	645.88	1373	28.6938%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3160724.332
5573540	6/24/1999	555	1.07	645.88	1373	28.6938%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3160724.332
5573540	10/8/2008	555	1.07	645.88	1373	28.6938%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3160724.332
5573540	10/24/1990	552	1.07	642.67	1376	28.7565%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3145009.308
5573540	9/23/2014	551	1.07	641.60	1377	28.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3139770.967
5573540	6/10/2002	550	1.07	640.52	1378	28.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3134532.626
5573540	7/5/2008	549	1.07	639.45	1379	28.8192%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3129294.285
5573540	5/21/2006	548	1.07	638.38	1380	28.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3124055.944

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/30/2008	548	1.07	638.38	1380	28.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3124055.944
5573540	6/4/2006	547	1.07	637.31	1382	28.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3118817.603
5573540	7/28/2010	547	1.07	637.31	1382	28.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3118817.603
5573540	9/2/2004	546	1.07	636.24	1384	28.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3113579.262
5573540	7/3/2000	543	1.07	633.03	1385	28.9446%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3097864.239
5573540	7/4/2000	543	1.07	633.03	1385	28.9446%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3097864.239
5573540	7/19/2003	542	1.07	631.96	1387	28.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3092625.898
5573540	8/24/2014	542	1.07	631.96	1387	28.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3092625.898
5573540	10/25/2004	542	1.07	631.96	1387	28.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3092625.898
5573540	10/31/2008	542	1.07	631.96	1387	28.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3092625.898
5573540	5/9/1999	540	1.07	629.82	1391	29.0700%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3082149.216
5573540	9/22/2014	540	1.07	629.82	1391	29.0700%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3082149.216
5573540	5/9/2006	538	1.07	627.68	1393	29.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3071672.533
5573540	8/18/2006	538	1.07	627.68	1393	29.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3071672.533
5573540	5/6/2007	537	1.07	626.61	1395	29.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3066434.192
5573540	5/24/2008	537	1.07	626.61	1395	29.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3066434.192
5573540	6/15/1993	536	1.07	625.54	1397	29.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3061195.851
5573540	6/22/1995	535	1.07	624.47	1398	29.2163%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3055957.51
5573540	5/24/1999	534	1.07	623.40	1399	29.2372%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3050719.169
5573540	5/4/2008	532	1.07	621.26	1400	29.2581%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3040242.487
5573540	7/22/2014	531	1.07	620.19	1401	29.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3035004.146
5573540	8/6/1992	530	1.07	619.12	1402	29.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3029765.805
5573540	6/7/2000	529	1.07	618.05	1403	29.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3024527.464
5573540	6/28/2002	529	1.07	618.05	1403	29.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3024527.464
5573540	5/29/1991	528	1.07	616.98	1405	29.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3019289.123
5573540	6/26/1997	528	1.07	616.98	1405	29.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3019289.123
5573540	6/23/2013	528	1.07	616.98	1405	29.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3019289.123
5573540	5/8/1999	527	1.07	615.90	1408	29.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3014050.782
5573540	7/20/2003	525	1.07	613.76	1409	29.4462%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3003574.099
5573540	5/26/1999	524	1.07	612.69	1410	29.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2998335.758
5573540	6/16/2005	524	1.07	612.69	1410	29.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2998335.758
5573540	6/28/2007	521	1.07	609.48	1412	29.5089%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2982620.735
5573540	5/12/2005	520	1.07	608.41	1413	29.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2977382.394
5573540	7/26/2008	520	1.07	608.41	1413	29.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2977382.394
5573540	8/4/1993	520	1.07	608.41	1413	29.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2977382.394
5573540	5/22/2006	518	1.07	606.27	1416	29.5925%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2966905.712
5573540	5/11/2006	517	1.07	605.20	1417	29.6134%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2961667.371
5573540	7/2/2000	517	1.07	605.20	1417	29.6134%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2961667.371
5573540	7/1/2000	516	1.07	604.13	1419	29.6552%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2956429.03
5573540	6/30/1996	515	1.07	603.06	1420	29.6761%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2951190.689
5573540	7/18/2003	515	1.07	603.06	1420	29.6761%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2951190.689
5573540	5/5/1990	514	1.07	601.99	1422	29.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2945952.348
5573540	6/19/1993	514	1.07	601.99	1422	29.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2945952.348
5573540	5/21/1999	511	1.07	598.78	1424	29.7597%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2930237.324
5573540	5/13/2006	508	1.07	595.57	1425	29.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2914522.301
5573540	5/19/2013	508	1.07	595.57	1425	29.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2914522.301

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/22/1999	508	1.07	595.57	1425	29.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2914522.301
5573540	9/11/2014	508	1.07	595.57	1425	29.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2914522.301
5573540	5/14/2000	505	1.07	592.36	1429	29.8642%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2898807.278
5573540	6/5/2006	505	1.07	592.36	1429	29.8642%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2898807.278
5573540	6/20/2014	505	1.07	592.36	1429	29.8642%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2898807.278
5573540	10/28/2001	505	1.07	592.36	1429	29.8642%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2898807.278
5573540	5/27/1994	504	1.07	591.28	1433	29.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2893568.937
5573540	6/16/1993	503	1.07	590.21	1434	29.9687%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2888330.596
5573540	6/12/2013	502	1.07	589.14	1435	29.9896%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2883092.255
5573540	9/3/1993	502	1.07	589.14	1435	29.9896%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2883092.255
5573540	10/6/2000	502	1.07	589.14	1435	29.9896%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2883092.255
5573540	8/2/1993	501	1.07	588.07	1438	30.0522%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2877853.914
5573540	5/8/1992	500	1.07	587.00	1439	30.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2872615.573
5573540	5/10/1992	500	1.07	587.00	1439	30.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2872615.573
5573540	6/5/2002	500	1.07	587.00	1439	30.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2872615.573
5573540	7/5/2010	500	1.07	587.00	1439	30.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2872615.573
5573540	8/6/1998	497	1.07	583.79	1443	30.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2856900.549
5573540	9/1/2003	495	1.07	581.65	1444	30.1776%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2846423.867
5573540	5/25/2013	494	1.07	580.58	1445	30.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2841185.526
5573540	6/30/2000	494	1.07	580.58	1445	30.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2841185.526
5573540	5/22/2003	493	1.07	579.51	1447	30.2403%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2835947.185
5573540	5/1/2008	491	1.07	577.37	1448	30.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2825470.503
5573540	7/17/2009	490	1.07	576.30	1449	30.2821%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2820232.162
5573540	10/23/2014	490	1.07	576.30	1449	30.2821%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2820232.162
5573540	7/1/1995	489	1.07	575.23	1451	30.3239%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2814993.821
5573540	7/12/1998	489	1.07	575.23	1451	30.3239%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2814993.821
5573540	6/21/2014	488	1.07	574.16	1453	30.3657%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2809755.48
5573540	8/26/1993	487	1.07	573.09	1454	30.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2804517.139
5573540	8/13/1995	487	1.07	573.09	1454	30.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2804517.139
5573540	6/29/2002	486	1.07	572.02	1456	30.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2799278.798
5573540	7/2/1995	486	1.07	572.02	1456	30.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2799278.798
5573540	7/3/1999	486	1.07	572.02	1456	30.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2799278.798
5573540	10/11/2014	486	1.07	572.02	1456	30.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2799278.798
5573540	5/2/2004	485	1.07	570.95	1460	30.5120%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2794040.457
5573540	7/28/2008	485	1.07	570.95	1460	30.5120%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2794040.457
5573540	6/28/1997	484	1.07	569.88	1462	30.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2788802.115
5573540	7/10/2014	484	1.07	569.88	1462	30.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2788802.115
5573540	9/13/1993	484	1.07	569.88	1462	30.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2788802.115
5573540	5/18/1999	483	1.07	568.81	1465	30.6165%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2783563.774
5573540	7/20/1992	483	1.07	568.81	1465	30.6165%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2783563.774
5573540	10/10/2008	482	1.07	567.74	1467	30.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2778325.433
5573540	7/2/2008	481	1.07	566.67	1468	30.6792%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2773087.092
5573540	7/23/2013	481	1.07	566.67	1468	30.6792%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2773087.092
5573540	5/19/1993	480	1.07	565.59	1470	30.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2767848.751
5573540	6/17/2000	480	1.07	565.59	1470	30.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2767848.751
5573540	7/4/1999	480	1.07	565.59	1470	30.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2767848.751

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/24/2003	479	1.07	564.52	1473	30.7837%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2762610.41
5573540	10/11/2009	479	1.07	564.52	1473	30.7837%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2762610.41
5573540	5/25/1993	478	1.07	563.45	1475	30.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2757372.069
5573540	5/4/1999	477	1.07	562.38	1476	30.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2752133.728
5573540	6/27/2002	477	1.07	562.38	1476	30.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2752133.728
5573540	10/12/2014	477	1.07	562.38	1476	30.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2752133.728
5573540	6/5/2000	476	1.07	561.31	1479	30.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2746895.387
5573540	5/25/1999	475	1.07	560.24	1480	30.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2741657.046
5573540	6/24/2008	475	1.07	560.24	1480	30.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2741657.046
5573540	7/5/1999	475	1.07	560.24	1480	30.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2741657.046
5573540	7/10/2000	475	1.07	560.24	1480	30.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2741657.046
5573540	7/3/1995	474	1.07	559.17	1484	31.0136%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2736418.705
5573540	8/7/2003	474	1.07	559.17	1484	31.0136%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2736418.705
5573540	6/15/2013	473	1.07	558.10	1486	31.0554%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2731180.364
5573540	8/11/1995	473	1.07	558.10	1486	31.0554%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2731180.364
5573540	5/12/1999	472	1.07	557.03	1488	31.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2725942.023
5573540	6/21/2003	472	1.07	557.03	1488	31.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2725942.023
5573540	9/22/2015	472	1.07	557.03	1488	31.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2725942.023
5573540	10/28/2014	472	1.07	557.03	1488	31.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2725942.023
5573540	8/29/1992	471	1.07	555.96	1492	31.1808%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2720703.682
5573540	10/10/2009	471	1.07	555.96	1492	31.1808%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2720703.682
5573540	7/8/2009	470	1.07	554.89	1494	31.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2715465.34
5573540	9/26/2014	470	1.07	554.89	1494	31.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2715465.34
5573540	5/16/1993	469	1.07	553.82	1496	31.2644%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2710226.999
5573540	7/8/2004	469	1.07	553.82	1496	31.2644%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2710226.999
5573540	6/2/1993	468	1.07	552.75	1498	31.3062%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2704988.658
5573540	6/19/1997	468	1.07	552.75	1498	31.3062%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2704988.658
5573540	5/18/2013	467	1.07	551.68	1500	31.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2699750.317
5573540	5/4/2014	467	1.07	551.68	1500	31.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2699750.317
5573540	6/30/1995	467	1.07	551.68	1500	31.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2699750.317
5573540	5/10/2006	466	1.07	550.61	1503	31.4107%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2694511.976
5573540	7/1/1996	465	1.07	549.54	1504	31.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2689273.635
5573540	10/26/2014	464	1.07	548.47	1505	31.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2684035.294
5573540	6/17/2005	463	1.07	547.40	1506	31.4734%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2678796.953
5573540	7/3/2009	463	1.07	547.40	1506	31.4734%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2678796.953
5573540	7/6/2015	463	1.07	547.40	1506	31.4734%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2678796.953
5573540	10/25/2014	463	1.07	547.40	1506	31.4734%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2678796.953
5573540	10/29/2014	463	1.07	547.40	1506	31.4734%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2678796.953
5573540	5/28/1994	462	1.07	546.33	1511	31.5778%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2673558.612
5573540	6/26/2008	461	1.07	545.26	1512	31.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2668320.271
5573540	7/15/1998	461	1.07	545.26	1512	31.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2668320.271
5573540	5/3/1991	460	1.07	544.19	1514	31.6405%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2663081.93
5573540	5/5/2007	459	1.07	543.12	1515	31.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2657843.589
5573540	8/15/1999	459	1.07	543.12	1515	31.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2657843.589
5573540	5/12/2006	458	1.07	542.05	1517	31.7032%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2652605.248
5573540	6/21/1999	458	1.07	542.05	1517	31.7032%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2652605.248

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/26/2006	458	1.07	542.05	1517	31.7032%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2652605.248
5573540	6/30/2002	455	1.07	538.83	1520	31.7659%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2636890.224
5573540	10/15/2009	455	1.07	538.83	1520	31.7659%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2636890.224
5573540	6/27/2003	454	1.07	537.76	1522	31.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2631651.883
5573540	5/22/1999	453	1.07	536.69	1523	31.8286%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2626413.542
5573540	7/4/1995	453	1.07	536.69	1523	31.8286%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2626413.542
5573540	7/3/2004	453	1.07	536.69	1523	31.8286%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2626413.542
5573540	8/30/1993	453	1.07	536.69	1523	31.8286%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2626413.542
5573540	7/11/2014	452	1.07	535.62	1527	31.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2621175.201
5573540	5/23/2006	451	1.07	534.55	1528	31.9331%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2615936.86
5573540	10/26/2004	450	1.07	533.48	1529	31.9540%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2610698.519
5573540	7/16/2006	449	1.07	532.41	1530	31.9749%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2605460.178
5573540	5/20/2015	448	1.07	531.34	1531	31.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2600221.837
5573540	7/2/2009	448	1.07	531.34	1531	31.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2600221.837
5573540	6/15/2001	447	1.07	530.27	1533	32.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2594983.496
5573540	5/27/1999	445	1.07	528.13	1534	32.0585%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2584506.814
5573540	5/13/2012	445	1.07	528.13	1534	32.0585%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2584506.814
5573540	8/8/1992	444	1.07	527.06	1536	32.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2579268.473
5573540	7/3/2007	442	1.07	524.92	1537	32.1212%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2568791.79
5573540	10/30/2014	442	1.07	524.92	1537	32.1212%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2568791.79
5573540	5/10/1990	441	1.07	523.85	1539	32.1630%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2563553.449
5573540	7/18/2009	441	1.07	523.85	1539	32.1630%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2563553.449
5573540	7/7/2013	441	1.07	523.85	1539	32.1630%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2563553.449
5573540	5/3/1992	440	1.07	522.78	1542	32.2257%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2558315.108
5573540	6/22/2003	440	1.07	522.78	1542	32.2257%	Fecal_coliform	165	cfu/100mL	200	283.2	2110609.964	2558315.108
5573540	8/5/1993	440	1.07	522.78	1542	32.2257%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2558315.108
5573540	10/24/2014	440	1.07	522.78	1542	32.2257%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2558315.108
5573540	5/29/1994	439	1.07	521.71	1546	32.3093%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2553076.767
5573540	5/29/2014	439	1.07	521.71	1546	32.3093%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2553076.767
5573540	7/12/2006	439	1.07	521.71	1546	32.3093%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2553076.767
5573540	7/7/2010	439	1.07	521.71	1546	32.3093%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2553076.767
5573540	9/2/2006	439	1.07	521.71	1546	32.3093%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2553076.767
5573540	5/31/2006	438	1.07	520.64	1551	32.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2547838.426
5573540	7/16/2009	438	1.07	520.64	1551	32.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2547838.426
5573540	10/31/2014	437	1.07	519.57	1553	32.4556%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2542600.085
5573540	6/17/1994	434	1.07	516.36	1554	32.4765%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2526885.062
5573540	6/19/2014	434	1.07	516.36	1554	32.4765%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2526885.062
5573540	5/9/2008	433	1.07	515.28	1556	32.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2521646.721
5573540	5/21/2015	433	1.07	515.28	1556	32.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2521646.721
5573540	7/8/2013	433	1.07	515.28	1556	32.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2521646.721
5573540	6/16/2014	432	1.07	514.21	1559	32.5810%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2516408.38
5573540	7/6/2013	432	1.07	514.21	1559	32.5810%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2516408.38
5573540	5/23/2011	430	1.07	512.07	1561	32.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2505931.698
5573540	7/6/2010	430	1.07	512.07	1561	32.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2505931.698
5573540	7/24/2010	430	1.07	512.07	1561	32.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2505931.698
5573540	10/27/2014	430	1.07	512.07	1561	32.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2505931.698

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/7/1998	429	1.07	511.00	1565	32.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2500693.356
5573540	6/1/1999	429	1.07	511.00	1565	32.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2500693.356
5573540	6/16/2001	429	1.07	511.00	1565	32.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2500693.356
5573540	6/30/2003	429	1.07	511.00	1565	32.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2500693.356
5573540	10/16/2000	428	1.07	509.93	1569	32.7900%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2495455.015
5573540	6/27/2007	427	1.07	508.86	1570	32.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2490216.674
5573540	5/2/2000	426	1.07	507.79	1571	32.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2484978.333
5573540	8/12/1993	426	1.07	507.79	1571	32.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2484978.333
5573540	9/3/2010	425	1.07	506.72	1573	32.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2479739.992
5573540	5/30/1994	423	1.07	504.58	1574	32.8945%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2469263.31
5573540	5/1/2005	423	1.07	504.58	1574	32.8945%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2469263.31
5573540	5/3/2008	423	1.07	504.58	1574	32.8945%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2469263.31
5573540	9/6/2008	423	1.07	504.58	1574	32.8945%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2469263.31
5573540	10/23/1990	423	1.07	504.58	1574	32.8945%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2469263.31
5573540	9/28/2008	422	1.07	503.51	1579	32.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2464024.969
5573540	10/11/2008	422	1.07	503.51	1579	32.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2464024.969
5573540	5/2/1992	420	1.07	501.37	1581	33.0408%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2453548.287
5573540	7/9/2013	419	1.07	500.30	1582	33.0617%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2448309.946
5573540	9/27/2008	418	1.07	499.23	1583	33.0825%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2443071.605
5573540	5/12/2007	416	1.07	497.09	1584	33.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2432594.923
5573540	6/17/2001	415	1.07	496.02	1585	33.1243%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2427356.581
5573540	8/9/1992	415	1.07	496.02	1585	33.1243%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2427356.581
5573540	6/23/1997	414	1.07	494.95	1587	33.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2422118.24
5573540	10/17/2006	414	1.07	494.95	1587	33.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2422118.24
5573540	5/24/2006	412	1.07	492.81	1589	33.2079%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2411641.558
5573540	6/29/1993	412	1.07	492.81	1589	33.2079%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2411641.558
5573540	9/29/2008	412	1.07	492.81	1589	33.2079%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2411641.558
5573540	5/26/2014	411	1.07	491.74	1592	33.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2406403.217
5573540	7/2/2004	411	1.07	491.74	1592	33.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2406403.217
5573540	5/4/1992	410	1.07	490.66	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2401164.876
5573540	5/5/1992	410	1.07	490.66	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2401164.876
5573540	5/29/2006	410	1.07	490.66	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2401164.876
5573540	5/19/2015	410	1.07	490.66	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2401164.876
5573540	6/8/1998	410	1.07	490.66	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2401164.876
5573540	6/30/2009	410	1.07	490.66	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2401164.876
5573540	6/17/2014	408	1.07	488.52	1600	33.4378%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2390688.194
5573540	7/21/1992	408	1.07	488.52	1600	33.4378%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2390688.194
5573540	10/2/2014	408	1.07	488.52	1600	33.4378%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2390688.194
5573540	6/24/1994	407	1.07	487.45	1603	33.5005%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2385449.853
5573540	5/20/1993	405	1.07	485.31	1604	33.5214%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2374973.171
5573540	6/22/2014	405	1.07	485.31	1604	33.5214%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2374973.171
5573540	5/23/1994	404	1.07	484.24	1606	33.5632%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2369734.83
5573540	6/13/2000	404	1.07	484.24	1606	33.5632%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2369734.83
5573540	8/30/1992	404	1.07	484.24	1606	33.5632%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2369734.83
5573540	10/19/2001	403	1.07	483.17	1609	33.6259%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2364496.489
5573540	7/29/1990	401	1.07	481.03	1610	33.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2354019.806

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/9/2003	401	1.07	481.03	1610	33.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2354019.806
5573540	5/2/2005	400	1.07	479.96	1612	33.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2348781.465
5573540	6/10/2000	400	1.07	479.96	1612	33.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2348781.465
5573540	6/4/2000	398	1.07	477.82	1614	33.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2338304.783
5573540	7/4/2004	398	1.07	477.82	1614	33.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2338304.783
5573540	7/23/2014	398	1.07	477.82	1614	33.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2338304.783
5573540	7/24/2014	397	1.07	476.75	1617	33.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2333066.442
5573540	8/7/1992	397	1.07	476.75	1617	33.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2333066.442
5573540	9/7/2009	397	1.07	476.75	1617	33.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2333066.442
5573540	6/17/1993	396	1.07	475.68	1620	33.8558%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2327828.101
5573540	6/26/1994	396	1.07	475.68	1620	33.8558%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2327828.101
5573540	7/7/2004	396	1.07	475.68	1620	33.8558%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2327828.101
5573540	6/26/1996	395	1.07	474.61	1623	33.9185%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2322589.76
5573540	8/2/2006	395	1.07	474.61	1623	33.9185%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2322589.76
5573540	5/8/2004	394	1.07	473.54	1625	33.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2317351.419
5573540	5/11/2007	392	1.07	471.40	1626	33.9812%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2306874.737
5573540	6/18/1993	392	1.07	471.40	1626	33.9812%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2306874.737
5573540	10/26/1990	392	1.07	471.40	1626	33.9812%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2306874.737
5573540	10/27/2006	392	1.07	471.40	1626	33.9812%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2306874.737
5573540	6/25/2008	391	1.07	470.33	1630	34.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2301636.396
5573540	7/19/2009	391	1.07	470.33	1630	34.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2301636.396
5573540	5/6/1992	390	1.07	469.26	1632	34.1066%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2296398.055
5573540	5/30/2006	390	1.07	469.26	1632	34.1066%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2296398.055
5573540	7/1/2009	389	1.07	468.19	1634	34.1484%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2291159.714
5573540	7/16/2013	387	1.07	466.05	1635	34.1693%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2280683.031
5573540	7/20/2015	386	1.07	464.97	1636	34.1902%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2275444.69
5573540	6/8/1994	385	1.07	463.90	1637	34.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2270206.349
5573540	6/29/1997	385	1.07	463.90	1637	34.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2270206.349
5573540	6/25/2002	385	1.07	463.90	1637	34.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2270206.349
5573540	5/13/2004	384	1.07	462.83	1640	34.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2264968.008
5573540	10/12/2008	384	1.07	462.83	1640	34.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2264968.008
5573540	5/30/1999	383	1.07	461.76	1642	34.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2259729.667
5573540	5/31/1999	383	1.07	461.76	1642	34.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2259729.667
5573540	5/3/2005	383	1.07	461.76	1642	34.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2259729.667
5573540	7/18/1990	383	1.07	461.76	1642	34.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2259729.667
5573540	5/24/1993	382	1.07	460.69	1646	34.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2254491.326
5573540	5/29/1999	382	1.07	460.69	1646	34.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2254491.326
5573540	6/4/2001	382	1.07	460.69	1646	34.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2254491.326
5573540	7/5/2004	381	1.07	459.62	1649	34.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2249252.985
5573540	7/14/2000	380	1.07	458.55	1650	34.4828%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2244014.644
5573540	7/9/2011	380	1.07	458.55	1650	34.4828%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2244014.644
5573540	5/9/1997	378	1.07	456.41	1652	34.5246%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2233537.962
5573540	5/14/2013	377	1.07	455.34	1653	34.5455%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2228299.621
5573540	5/28/2014	377	1.07	455.34	1653	34.5455%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2228299.621
5573540	6/23/2001	377	1.07	455.34	1653	34.5455%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2228299.621
5573540	7/14/2009	377	1.07	455.34	1653	34.5455%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2228299.621

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/24/2001	376	1.07	454.27	1657	34.6290%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2223061.28
5573540	5/10/2015	375	1.07	453.20	1658	34.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2217822.939
5573540	6/25/2001	375	1.07	453.20	1658	34.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2217822.939
5573540	7/19/2004	375	1.07	453.20	1658	34.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2217822.939
5573540	10/16/2008	375	1.07	453.20	1658	34.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2217822.939
5573540	8/29/2014	374	1.07	452.13	1662	34.7335%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2212584.597
5573540	5/15/1997	373	1.07	451.06	1663	34.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2207346.256
5573540	6/10/1994	373	1.07	451.06	1663	34.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2207346.256
5573540	5/20/2000	372	1.07	449.99	1665	34.7962%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2202107.915
5573540	6/30/2004	372	1.07	449.99	1665	34.7962%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2202107.915
5573540	8/3/2006	372	1.07	449.99	1665	34.7962%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2202107.915
5573540	5/12/1997	371	1.07	448.92	1668	34.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2196869.574
5573540	6/26/2001	371	1.07	448.92	1668	34.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2196869.574
5573540	9/8/2008	370	1.07	447.85	1670	34.9007%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2191631.233
5573540	7/8/2011	369	1.07	446.78	1671	34.9216%	Fecal_coliform	600	cfu/100mL	200	283.2	6559178.676	2186392.892
5573540	10/31/1992	369	1.07	446.78	1671	34.9216%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2186392.892
5573540	8/6/2003	368	1.07	445.71	1673	34.9634%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2181154.551
5573540	5/14/1997	367	1.07	444.64	1674	34.9843%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2175916.21
5573540	6/14/1991	367	1.07	444.64	1674	34.9843%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2175916.21
5573540	7/30/1990	367	1.07	444.64	1674	34.9843%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2175916.21
5573540	7/6/2007	367	1.07	444.64	1674	34.9843%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2175916.21
5573540	5/21/2005	366	1.07	443.57	1678	35.0679%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2170677.869
5573540	6/11/1992	366	1.07	443.57	1678	35.0679%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2170677.869
5573540	6/11/2000	366	1.07	443.57	1678	35.0679%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2170677.869
5573540	5/30/2007	365	1.07	442.50	1681	35.1306%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2165439.528
5573540	5/28/1999	363	1.07	440.35	1682	35.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2154962.846
5573540	5/9/2015	363	1.07	440.35	1682	35.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2154962.846
5573540	6/22/2001	363	1.07	440.35	1682	35.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2154962.846
5573540	7/9/2004	363	1.07	440.35	1682	35.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2154962.846
5573540	5/11/1997	362	1.07	439.28	1686	35.2351%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2149724.505
5573540	5/23/2003	362	1.07	439.28	1686	35.2351%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2149724.505
5573540	5/27/2003	362	1.07	439.28	1686	35.2351%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2149724.505
5573540	7/10/1990	362	1.07	439.28	1686	35.2351%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2149724.505
5573540	7/23/2015	361	1.07	438.21	1690	35.3187%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2144486.164
5573540	5/4/2005	360	1.07	437.14	1691	35.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2139247.822
5573540	7/3/1997	360	1.07	437.14	1691	35.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2139247.822
5573540	6/3/1994	358	1.07	435.00	1693	35.3814%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2128771.14
5573540	6/9/2000	357	1.07	433.93	1694	35.4023%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2123532.799
5573540	7/16/1998	357	1.07	433.93	1694	35.4023%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2123532.799
5573540	7/25/2014	357	1.07	433.93	1694	35.4023%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2123532.799
5573540	7/23/1992	355	1.07	431.79	1697	35.4650%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2113056.117
5573540	7/30/2008	355	1.07	431.79	1697	35.4650%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2113056.117
5573540	8/31/2006	355	1.07	431.79	1697	35.4650%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2113056.117
5573540	9/27/2014	355	1.07	431.79	1697	35.4650%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2113056.117
5573540	5/6/1990	353	1.07	429.65	1701	35.5486%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2102579.435
5573540	7/15/2009	353	1.07	429.65	1701	35.5486%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2102579.435

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/18/2005	351	1.07	427.51	1703	35.5904%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2092102.753
5573540	7/17/2000	351	1.07	427.51	1703	35.5904%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2092102.753
5573540	5/7/2007	350	1.07	426.44	1705	35.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2086864.412
5573540	6/3/2003	350	1.07	426.44	1705	35.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2086864.412
5573540	7/8/1999	350	1.07	426.44	1705	35.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2086864.412
5573540	7/22/2015	350	1.07	426.44	1705	35.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2086864.412
5573540	8/22/1995	350	1.07	426.44	1705	35.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2086864.412
5573540	7/4/1996	349	1.07	425.37	1710	35.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2081626.071
5573540	5/15/1993	348	1.07	424.30	1711	35.7576%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2076387.73
5573540	5/13/1997	348	1.07	424.30	1711	35.7576%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2076387.73
5573540	7/8/2010	348	1.07	424.30	1711	35.7576%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2076387.73
5573540	7/29/2014	348	1.07	424.30	1711	35.7576%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2076387.73
5573540	9/30/2008	348	1.07	424.30	1711	35.7576%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2076387.73
5573540	5/14/1992	347	1.07	423.23	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2071149.389
5573540	5/19/2000	347	1.07	423.23	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2071149.389
5573540	6/3/1991	347	1.07	423.23	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2071149.389
5573540	6/26/2003	347	1.07	423.23	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2071149.389
5573540	7/6/1997	347	1.07	423.23	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2071149.389
5573540	9/6/2003	347	1.07	423.23	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2071149.389
5573540	7/25/1996	346	1.07	422.16	1722	35.9875%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2065911.047
5573540	8/19/2014	346	1.07	422.16	1722	35.9875%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2065911.047
5573540	10/6/1993	346	1.07	422.16	1722	35.9875%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2065911.047
5573540	5/10/1997	344	1.07	420.02	1725	36.0502%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2055434.365
5573540	10/17/2000	344	1.07	420.02	1725	36.0502%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2055434.365
5573540	5/28/2001	343	1.07	418.95	1727	36.0920%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2050196.024
5573540	5/5/2015	343	1.07	418.95	1727	36.0920%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2050196.024
5573540	7/16/2000	343	1.07	418.95	1727	36.0920%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2050196.024
5573540	6/13/1991	341	1.07	416.81	1730	36.1546%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2039719.342
5573540	7/4/1994	341	1.07	416.81	1730	36.1546%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2039719.342
5573540	7/4/2007	341	1.07	416.81	1730	36.1546%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2039719.342
5573540	5/11/1992	340	1.07	415.74	1733	36.2173%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2034481.001
5573540	5/17/2007	340	1.07	415.74	1733	36.2173%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2034481.001
5573540	6/18/2001	340	1.07	415.74	1733	36.2173%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2034481.001
5573540	10/23/2006	340	1.07	415.74	1733	36.2173%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2034481.001
5573540	5/1/2000	339	1.07	414.66	1737	36.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2029242.66
5573540	6/29/1996	339	1.07	414.66	1737	36.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2029242.66
5573540	5/5/2005	338	1.07	413.59	1739	36.3427%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2024004.319
5573540	10/29/1990	338	1.07	413.59	1739	36.3427%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2024004.319
5573540	5/7/2004	337	1.07	412.52	1741	36.3845%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2018765.978
5573540	8/31/1993	337	1.07	412.52	1741	36.3845%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2018765.978
5573540	6/10/1992	336	1.07	411.45	1743	36.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2013527.637
5573540	6/12/2005	336	1.07	411.45	1743	36.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2013527.637
5573540	9/28/2014	335	1.07	410.38	1745	36.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2008289.296
5573540	5/16/1997	334	1.07	409.31	1746	36.4890%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2003050.955
5573540	6/8/2000	334	1.07	409.31	1746	36.4890%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2003050.955
5573540	10/29/2006	334	1.07	409.31	1746	36.4890%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2003050.955

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/15/1992	333	1.07	408.24	1749	36.5517%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1997812.613
5573540	7/25/2003	331	1.07	406.10	1750	36.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1987335.931
5573540	9/7/2003	331	1.07	406.10	1750	36.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1987335.931
5573540	5/13/2007	330	1.07	405.03	1752	36.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1982097.59
5573540	7/5/2007	330	1.07	405.03	1752	36.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1982097.59
5573540	7/26/2014	330	1.07	405.03	1752	36.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1982097.59
5573540	5/16/2007	329	1.07	403.96	1755	36.6771%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1976859.249
5573540	5/10/2008	329	1.07	403.96	1755	36.6771%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1976859.249
5573540	5/25/2006	328	1.07	402.89	1757	36.7189%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1971620.908
5573540	6/28/1996	328	1.07	402.89	1757	36.7189%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1971620.908
5573540	7/5/2011	328	1.07	402.89	1757	36.7189%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1971620.908
5573540	5/29/2007	327	1.07	401.82	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1966382.567
5573540	5/22/2015	327	1.07	401.82	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1966382.567
5573540	6/24/1997	327	1.07	401.82	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1966382.567
5573540	6/2/2003	327	1.07	401.82	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1966382.567
5573540	7/24/2015	327	1.07	401.82	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1966382.567
5573540	10/28/2006	327	1.07	401.82	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1966382.567
5573540	5/22/2005	326	1.07	400.75	1766	36.9070%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1961144.226
5573540	5/9/2004	325	1.07	399.68	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1955905.885
5573540	5/4/2010	325	1.07	399.68	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1955905.885
5573540	6/10/2006	325	1.07	399.68	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1955905.885
5573540	7/5/1997	325	1.07	399.68	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1955905.885
5573540	7/15/2000	325	1.07	399.68	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1955905.885
5573540	7/28/2014	325	1.07	399.68	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1955905.885
5573540	5/3/2004	324	1.07	398.61	1773	37.0533%	Fecal_coliform	320	cfu/100mL	200	283.2	3121068.07	1950667.544
5573540	5/2/2008	324	1.07	398.61	1773	37.0533%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1950667.544
5573540	5/27/2000	323	1.07	397.54	1775	37.0951%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1945429.203
5573540	7/5/1996	323	1.07	397.54	1775	37.0951%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1945429.203
5573540	8/7/1998	323	1.07	397.54	1775	37.0951%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1945429.203
5573540	8/2/2008	323	1.07	397.54	1775	37.0951%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1945429.203
5573540	5/31/2007	322	1.07	396.47	1779	37.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1940190.862
5573540	5/1/2014	322	1.07	396.47	1779	37.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1940190.862
5573540	7/3/1992	322	1.07	396.47	1779	37.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1940190.862
5573540	6/4/2002	319	1.07	393.26	1782	37.2414%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1924475.838
5573540	7/21/1990	319	1.07	393.26	1782	37.2414%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1924475.838
5573540	10/30/1993	319	1.07	393.26	1782	37.2414%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1924475.838
5573540	8/8/2003	318	1.07	392.19	1785	37.3041%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1919237.497
5573540	6/6/2006	317	1.07	391.12	1786	37.3250%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1913999.156
5573540	7/17/2006	316	1.07	390.04	1787	37.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1908760.815
5573540	10/22/2009	316	1.07	390.04	1787	37.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1908760.815
5573540	6/9/2006	315	1.07	388.97	1789	37.3877%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1903522.474
5573540	5/22/1992	314	1.07	387.90	1790	37.4086%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1898284.133
5573540	10/25/1990	314	1.07	387.90	1790	37.4086%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1898284.133
5573540	8/1/2008	313	1.07	386.83	1792	37.4504%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1893045.792
5573540	5/23/2005	312	1.07	385.76	1793	37.4713%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1887807.451
5573540	7/27/2014	312	1.07	385.76	1793	37.4713%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1887807.451

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/17/1990	311	1.07	384.69	1795	37.5131%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1882569.11
5573540	7/31/2008	311	1.07	384.69	1795	37.5131%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1882569.11
5573540	7/20/2009	311	1.07	384.69	1795	37.5131%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1882569.11
5573540	9/29/2014	311	1.07	384.69	1795	37.5131%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1882569.11
5573540	10/28/1990	311	1.07	384.69	1795	37.5131%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1882569.11
5573540	5/7/1995	310	1.07	383.62	1800	37.6176%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1877330.769
5573540	7/4/1997	310	1.07	383.62	1800	37.6176%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1877330.769
5573540	5/6/2015	309	1.07	382.55	1802	37.6594%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1872092.428
5573540	6/29/2008	309	1.07	382.55	1802	37.6594%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1872092.428
5573540	7/7/1997	309	1.07	382.55	1802	37.6594%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1872092.428
5573540	5/23/2015	308	1.07	381.48	1805	37.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1866854.087
5573540	8/3/2008	307	1.07	380.41	1806	37.7429%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1861615.746
5573540	10/30/1992	307	1.07	380.41	1806	37.7429%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1861615.746
5573540	7/17/1998	306	1.07	379.34	1808	37.7847%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1856377.405
5573540	5/8/1990	304	1.07	377.20	1809	37.8056%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1845900.722
5573540	5/23/1992	304	1.07	377.20	1809	37.8056%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1845900.722
5573540	5/16/2000	304	1.07	377.20	1809	37.8056%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1845900.722
5573540	6/19/1994	304	1.07	377.20	1809	37.8056%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1845900.722
5573540	6/24/2002	304	1.07	377.20	1809	37.8056%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1845900.722
5573540	6/11/2006	302	1.07	375.06	1814	37.9101%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1835424.04
5573540	7/8/1990	302	1.07	375.06	1814	37.9101%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1835424.04
5573540	7/10/2011	301	1.07	373.99	1816	37.9519%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1830185.699
5573540	5/11/2004	300	1.07	372.92	1817	37.9728%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1824947.358
5573540	7/7/2007	300	1.07	372.92	1817	37.9728%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1824947.358
5573540	6/5/1991	299	1.07	371.85	1819	38.0146%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1819709.017
5573540	5/28/2003	298	1.07	370.78	1820	38.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1814470.676
5573540	5/11/2005	298	1.07	370.78	1820	38.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1814470.676
5573540	9/2/2014	298	1.07	370.78	1820	38.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1814470.676
5573540	9/30/2014	298	1.07	370.78	1820	38.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1814470.676
5573540	6/27/2008	297	1.07	369.71	1824	38.1191%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1809232.335
5573540	10/9/2009	297	1.07	369.71	1824	38.1191%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1809232.335
5573540	5/13/2005	296	1.07	368.64	1826	38.1609%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1803993.994
5573540	7/29/2010	296	1.07	368.64	1826	38.1609%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1803993.994
5573540	9/8/2009	296	1.07	368.64	1826	38.1609%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1803993.994
5573540	6/23/2014	295	1.07	367.57	1829	38.2236%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1798755.653
5573540	8/10/1995	294	1.07	366.50	1830	38.2445%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1793517.312
5573540	5/2/1995	293	1.07	365.43	1831	38.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1788278.971
5573540	5/13/2000	293	1.07	365.43	1831	38.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1788278.971
5573540	5/24/2005	293	1.07	365.43	1831	38.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1788278.971
5573540	8/15/1992	293	1.07	365.43	1831	38.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1788278.971
5573540	5/10/2004	292	1.07	364.35	1835	38.3490%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1783040.63
5573540	7/16/1990	292	1.07	364.35	1835	38.3490%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1783040.63
5573540	5/1/1990	291	1.07	363.28	1837	38.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1777802.288
5573540	5/6/2012	291	1.07	363.28	1837	38.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1777802.288
5573540	7/25/2015	291	1.07	363.28	1837	38.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1777802.288
5573540	9/6/2010	291	1.07	363.28	1837	38.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1777802.288

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/6/2008	290	1.07	362.21	1841	38.4744%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1772563.947
5573540	9/4/2008	290	1.07	362.21	1841	38.4744%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1772563.947
5573540	6/2/2014	289	1.07	361.14	1843	38.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1767325.606
5573540	8/8/2014	289	1.07	361.14	1843	38.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1767325.606
5573540	10/9/2003	289	1.07	361.14	1843	38.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1767325.606
5573540	7/22/1998	288	1.07	360.07	1846	38.5789%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1762087.265
5573540	7/1/2004	288	1.07	360.07	1846	38.5789%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1762087.265
5573540	10/15/2008	288	1.07	360.07	1846	38.5789%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1762087.265
5573540	10/22/2008	288	1.07	360.07	1846	38.5789%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1762087.265
5573540	7/19/1998	287	1.07	359.00	1850	38.6625%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1756848.924
5573540	5/26/1992	285	1.07	356.86	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1746372.242
5573540	5/18/2007	285	1.07	356.86	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1746372.242
5573540	7/18/1999	285	1.07	356.86	1851	38.6834%	Fecal_coliform	160	cfu/100mL	200	283.2	1397097.794	1746372.242
5573540	8/16/1998	285	1.07	356.86	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1746372.242
5573540	8/24/2002	285	1.07	356.86	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1746372.242
5573540	10/27/1990	285	1.07	356.86	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1746372.242
5573540	7/18/1998	284	1.07	355.79	1857	38.8088%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1741133.901
5573540	8/9/1995	284	1.07	355.79	1857	38.8088%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1741133.901
5573540	5/12/2004	283	1.07	354.72	1859	38.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1735895.56
5573540	6/21/1991	283	1.07	354.72	1859	38.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1735895.56
5573540	8/7/2008	283	1.07	354.72	1859	38.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1735895.56
5573540	5/24/2003	282	1.07	353.65	1862	38.9133%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1730657.219
5573540	7/6/1999	282	1.07	353.65	1862	38.9133%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1730657.219
5573540	9/10/1992	282	1.07	353.65	1862	38.9133%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1730657.219
5573540	10/8/2003	282	1.07	353.65	1862	38.9133%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1730657.219
5573540	5/5/2014	281	1.07	352.58	1866	38.9969%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1725418.878
5573540	9/3/2009	281	1.07	352.58	1866	38.9969%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1725418.878
5573540	5/7/1992	280	1.07	351.51	1868	39.0387%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1720180.537
5573540	6/19/2006	280	1.07	351.51	1868	39.0387%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1720180.537
5573540	7/5/1995	280	1.07	351.51	1868	39.0387%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1720180.537
5573540	7/2/1997	280	1.07	351.51	1868	39.0387%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1720180.537
5573540	6/18/1994	279	1.07	350.44	1872	39.1223%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1714942.196
5573540	8/29/1990	279	1.07	350.44	1872	39.1223%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1714942.196
5573540	10/13/2008	279	1.07	350.44	1872	39.1223%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1714942.196
5573540	5/29/2003	278	1.07	349.37	1875	39.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1709703.854
5573540	5/30/2015	278	1.07	349.37	1875	39.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1709703.854
5573540	6/27/1996	278	1.07	349.37	1875	39.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1709703.854
5573540	6/22/1997	278	1.07	349.37	1875	39.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1709703.854
5573540	7/22/1992	278	1.07	349.37	1875	39.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1709703.854
5573540	5/26/1997	277	1.07	348.30	1880	39.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1704465.513
5573540	5/11/2000	277	1.07	348.30	1880	39.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1704465.513
5573540	6/19/2000	277	1.07	348.30	1880	39.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1704465.513
5573540	6/23/2003	276	1.07	347.23	1883	39.3521%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1699227.172
5573540	7/1/2002	276	1.07	347.23	1883	39.3521%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1699227.172
5573540	10/24/2004	276	1.07	347.23	1883	39.3521%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1699227.172
5573540	5/28/1992	275	1.07	346.16	1886	39.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1693988.831

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/17/1997	275	1.07	346.16	1886	39.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1693988.831
5573540	6/28/2003	275	1.07	346.16	1886	39.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1693988.831
5573540	7/27/1999	275	1.07	346.16	1886	39.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1693988.831
5573540	5/27/1992	274	1.07	345.09	1890	39.4984%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1688750.49
5573540	5/11/2011	274	1.07	345.09	1890	39.4984%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1688750.49
5573540	9/8/2003	274	1.07	345.09	1890	39.4984%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1688750.49
5573540	5/22/2001	273	1.07	344.02	1893	39.5611%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1683512.149
5573540	5/27/2014	273	1.07	344.02	1893	39.5611%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1683512.149
5573540	5/24/2015	273	1.07	344.02	1893	39.5611%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1683512.149
5573540	8/30/1990	272	1.07	342.95	1896	39.6238%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1678273.808
5573540	10/1/2008	272	1.07	342.95	1896	39.6238%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1678273.808
5573540	10/23/2008	272	1.07	342.95	1896	39.6238%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1678273.808
5573540	5/25/1992	271	1.07	341.88	1899	39.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1673035.467
5573540	5/3/2000	271	1.07	341.88	1899	39.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1673035.467
5573540	7/30/2014	271	1.07	341.88	1899	39.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1673035.467
5573540	8/21/1997	271	1.07	341.88	1899	39.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1673035.467
5573540	8/9/2003	271	1.07	341.88	1899	39.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1673035.467
5573540	6/19/2001	270	1.07	340.81	1904	39.7910%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1667797.126
5573540	6/19/2005	270	1.07	340.81	1904	39.7910%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1667797.126
5573540	7/26/1998	270	1.07	340.81	1904	39.7910%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1667797.126
5573540	7/7/1999	270	1.07	340.81	1904	39.7910%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1667797.126
5573540	6/14/1992	269	1.07	339.73	1908	39.8746%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1662558.785
5573540	7/8/1997	268	1.07	338.66	1909	39.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1657320.444
5573540	5/27/2001	267	1.07	337.59	1910	39.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1652082.103
5573540	6/6/1994	267	1.07	337.59	1910	39.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1652082.103
5573540	7/12/1997	267	1.07	337.59	1910	39.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1652082.103
5573540	7/15/2006	267	1.07	337.59	1910	39.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1652082.103
5573540	8/30/2002	267	1.07	337.59	1910	39.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1652082.103
5573540	5/29/1993	266	1.07	336.52	1915	40.0209%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1646843.762
5573540	8/10/1992	265	1.07	335.45	1916	40.0418%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1641605.421
5573540	7/9/1997	264	1.07	334.38	1917	40.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1636367.079
5573540	5/15/1992	263	1.07	333.31	1918	40.0836%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1631128.738
5573540	7/11/1997	263	1.07	333.31	1918	40.0836%	Fecal_coliform	90	cfu/100mL	200	283.2	734007.9323	1631128.738
5573540	7/12/2010	263	1.07	333.31	1918	40.0836%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1631128.738
5573540	5/7/1990	261	1.07	331.17	1921	40.1463%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1620652.056
5573540	6/20/2006	261	1.07	331.17	1921	40.1463%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1620652.056
5573540	6/7/1994	260	1.07	330.10	1923	40.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1615413.715
5573540	7/1/2003	260	1.07	330.10	1923	40.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1615413.715
5573540	7/26/2015	260	1.07	330.10	1923	40.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1615413.715
5573540	10/30/2006	258	1.07	327.96	1926	40.2508%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1604937.033
5573540	7/15/1997	257	1.07	326.89	1927	40.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1599698.692
5573540	8/2/2014	257	1.07	326.89	1927	40.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1599698.692
5573540	5/24/2000	256	1.07	325.82	1929	40.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1594460.351
5573540	6/12/2000	256	1.07	325.82	1929	40.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1594460.351
5573540	5/26/2003	255	1.07	324.75	1931	40.3553%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1589222.01
5573540	5/15/2007	255	1.07	324.75	1931	40.3553%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1589222.01

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/26/2015	254	1.07	323.68	1933	40.3971%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1583983.669
5573540	6/1/2003	254	1.07	323.68	1933	40.3971%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1583983.669
5573540	5/28/1993	253	1.07	322.61	1935	40.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1578745.328
5573540	5/29/2001	253	1.07	322.61	1935	40.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1578745.328
5573540	5/11/2014	253	1.07	322.61	1935	40.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1578745.328
5573540	7/5/2002	253	1.07	322.61	1935	40.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1578745.328
5573540	7/7/2011	253	1.07	322.61	1935	40.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1578745.328
5573540	7/24/1996	252	1.07	321.54	1940	40.5434%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1573506.987
5573540	8/11/1993	252	1.07	321.54	1940	40.5434%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1573506.987
5573540	6/5/1994	251	1.07	320.47	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1568268.646
5573540	6/16/1994	251	1.07	320.47	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1568268.646
5573540	7/27/1998	251	1.07	320.47	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1568268.646
5573540	7/24/2004	251	1.07	320.47	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1568268.646
5573540	7/9/2010	251	1.07	320.47	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1568268.646
5573540	7/13/2010	251	1.07	320.47	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1568268.646
5573540	7/11/2010	250	1.07	319.40	1948	40.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1563030.304
5573540	5/14/2007	249	1.07	318.33	1949	40.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1557791.963
5573540	5/13/2011	248	1.07	317.26	1950	40.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1552553.622
5573540	9/4/1997	248	1.07	317.26	1950	40.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1552553.622
5573540	9/3/2004	248	1.07	317.26	1950	40.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1552553.622
5573540	6/4/1994	247	1.07	316.19	1953	40.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1547315.281
5573540	5/10/2000	246	1.07	315.11	1954	40.8359%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1542076.94
5573540	6/9/2004	246	1.07	315.11	1954	40.8359%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1542076.94
5573540	5/18/1997	245	1.07	314.04	1956	40.8777%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1536838.599
5573540	5/19/1997	245	1.07	314.04	1956	40.8777%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1536838.599
5573540	5/6/2005	244	1.07	312.97	1958	40.9195%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1531600.258
5573540	5/10/2005	244	1.07	312.97	1958	40.9195%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1531600.258
5573540	7/18/2000	244	1.07	312.97	1958	40.9195%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1531600.258
5573540	5/27/1993	243	1.07	311.90	1961	40.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1526361.917
5573540	5/19/2007	243	1.07	311.90	1961	40.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1526361.917
5573540	7/14/2011	243	1.07	311.90	1961	40.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1526361.917
5573540	10/17/2008	243	1.07	311.90	1961	40.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1526361.917
5573540	5/20/1997	241	1.07	309.76	1965	41.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1515885.235
5573540	5/25/2015	241	1.07	309.76	1965	41.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1515885.235
5573540	7/10/1997	241	1.07	309.76	1965	41.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1515885.235
5573540	8/14/1992	241	1.07	309.76	1965	41.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1515885.235
5573540	6/11/1994	240	1.07	308.69	1969	41.1494%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1510646.894
5573540	7/6/2002	240	1.07	308.69	1969	41.1494%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1510646.894
5573540	5/31/1993	239	1.07	307.62	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1505408.553
5573540	5/2/1997	239	1.07	307.62	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1505408.553
5573540	5/21/1997	239	1.07	307.62	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1505408.553
5573540	5/11/2001	239	1.07	307.62	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1505408.553
5573540	5/20/2007	239	1.07	307.62	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1505408.553
5573540	5/5/2012	239	1.07	307.62	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1505408.553
5573540	8/13/1992	239	1.07	307.62	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1505408.553
5573540	8/16/1993	239	1.07	307.62	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1505408.553

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/14/1995	239	1.07	307.62	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1505408.553
5573540	8/22/1997	239	1.07	307.62	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1505408.553
5573540	8/24/2006	239	1.07	307.62	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1505408.553
5573540	5/25/2005	238	1.07	306.55	1982	41.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1500170.212
5573540	5/10/2007	238	1.07	306.55	1982	41.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1500170.212
5573540	5/4/2015	238	1.07	306.55	1982	41.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1500170.212
5573540	8/10/2003	236	1.07	304.41	1985	41.4838%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1489693.529
5573540	6/3/2014	235	1.07	303.34	1986	41.5047%	Fecal_coliform	250	cfu/100mL	200	283.2	1855568.985	1484455.188
5573540	6/8/2006	234	1.07	302.27	1987	41.5256%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1479216.847
5573540	7/10/2010	234	1.07	302.27	1987	41.5256%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1479216.847
5573540	8/8/1998	233	1.07	301.20	1989	41.5674%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1473978.506
5573540	7/6/2004	232	1.07	300.13	1990	41.5883%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1468740.165
5573540	5/21/1993	231	1.07	299.06	1991	41.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1463501.824
5573540	5/31/1994	231	1.07	299.06	1991	41.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1463501.824
5573540	7/21/2013	231	1.07	299.06	1991	41.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1463501.824
5573540	5/23/2001	230	1.07	297.99	1994	41.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1458263.483
5573540	5/31/2001	230	1.07	297.99	1994	41.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1458263.483
5573540	7/18/2006	230	1.07	297.99	1994	41.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1458263.483
5573540	5/12/2000	229	1.07	296.92	1997	41.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1453025.142
5573540	5/25/2003	229	1.07	296.92	1997	41.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1453025.142
5573540	7/21/2015	229	1.07	296.92	1997	41.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1453025.142
5573540	10/21/2001	229	1.07	296.92	1997	41.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1453025.142
5573540	10/23/2004	228	1.07	295.85	2001	41.8182%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1447786.801
5573540	6/1/2007	227	1.07	294.78	2002	41.8391%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1442548.46
5573540	7/9/1995	227	1.07	294.78	2002	41.8391%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1442548.46
5573540	8/28/2014	227	1.07	294.78	2002	41.8391%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1442548.46
5573540	5/21/2007	226	1.07	293.71	2005	41.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1437310.119
5573540	7/8/1995	226	1.07	293.71	2005	41.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1437310.119
5573540	8/9/1998	226	1.07	293.71	2005	41.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1437310.119
5573540	8/11/1992	225	1.07	292.64	2008	41.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1432071.778
5573540	8/5/2003	225	1.07	292.64	2008	41.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1432071.778
5573540	8/6/2008	225	1.07	292.64	2008	41.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1432071.778
5573540	10/31/1990	225	1.07	292.64	2008	41.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1432071.778
5573540	5/1/1997	224	1.07	291.57	2012	42.0481%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1426833.437
5573540	8/23/2006	224	1.07	291.57	2012	42.0481%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1426833.437
5573540	5/25/1997	223	1.07	290.50	2014	42.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1421595.095
5573540	5/12/2014	223	1.07	290.50	2014	42.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1421595.095
5573540	8/28/1997	223	1.07	290.50	2014	42.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1421595.095
5573540	8/9/2014	223	1.07	290.50	2014	42.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1421595.095
5573540	6/21/2001	222	1.07	289.42	2018	42.1735%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1416356.754
5573540	5/12/2001	221	1.07	288.35	2019	42.1944%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1411118.413
5573540	7/2/1992	221	1.07	288.35	2019	42.1944%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1411118.413
5573540	5/22/1997	220	1.07	287.28	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1405880.072
5573540	5/3/2015	220	1.07	287.28	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1405880.072
5573540	6/24/2003	220	1.07	287.28	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1405880.072
5573540	6/29/2003	220	1.07	287.28	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1405880.072

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/4/2006	220	1.07	287.28	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1405880.072
5573540	9/8/2004	220	1.07	287.28	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1405880.072
5573540	5/9/2005	219	1.07	286.21	2027	42.3615%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1400641.731
5573540	6/5/1992	219	1.07	286.21	2027	42.3615%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1400641.731
5573540	6/12/1994	219	1.07	286.21	2027	42.3615%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1400641.731
5573540	10/8/1990	219	1.07	286.21	2027	42.3615%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1400641.731
5573540	6/12/2006	217	1.07	284.07	2031	42.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1390165.049
5573540	6/23/2007	217	1.07	284.07	2031	42.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1390165.049
5573540	7/12/1994	217	1.07	284.07	2031	42.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1390165.049
5573540	9/9/2003	217	1.07	284.07	2031	42.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1390165.049
5573540	10/30/1990	217	1.07	284.07	2031	42.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1390165.049
5573540	5/24/1997	216	1.07	283.00	2036	42.5496%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1384926.708
5573540	7/6/1995	216	1.07	283.00	2036	42.5496%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1384926.708
5573540	10/21/2008	216	1.07	283.00	2036	42.5496%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1384926.708
5573540	5/21/2000	215	1.07	281.93	2039	42.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1379688.367
5573540	5/4/2004	215	1.07	281.93	2039	42.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1379688.367
5573540	6/11/2003	215	1.07	281.93	2039	42.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1379688.367
5573540	9/9/2009	215	1.07	281.93	2039	42.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1379688.367
5573540	5/29/1992	214	1.07	280.86	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1374450.026
5573540	6/15/1994	214	1.07	280.86	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1374450.026
5573540	6/28/2008	214	1.07	280.86	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1374450.026
5573540	7/7/1995	214	1.07	280.86	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1374450.026
5573540	8/4/2015	214	1.07	280.86	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1374450.026
5573540	9/3/1997	214	1.07	280.86	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1374450.026
5573540	5/22/2007	213	1.07	279.79	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1369211.685
5573540	5/10/2014	213	1.07	279.79	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1369211.685
5573540	5/27/2015	213	1.07	279.79	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1369211.685
5573540	6/21/2013	213	1.07	279.79	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1369211.685
5573540	7/21/2009	213	1.07	279.79	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1369211.685
5573540	8/7/2014	213	1.07	279.79	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1369211.685
5573540	10/1/2014	213	1.07	279.79	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1369211.685
5573540	10/7/2008	212	1.07	278.72	2056	42.9676%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1363973.344
5573540	5/23/2000	211	1.07	277.65	2057	42.9885%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1358735.003
5573540	6/6/1992	211	1.07	277.65	2057	42.9885%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1358735.003
5573540	9/3/2006	211	1.07	277.65	2057	42.9885%	Fecal_coliform	880	cfu/100mL	200	283.2	5978434.012	1358735.003
5573540	5/28/2007	210	1.07	276.58	2060	43.0512%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1353496.662
5573540	7/23/2000	209	1.07	275.51	2061	43.0721%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1348258.32
5573540	7/20/1997	208	1.07	274.44	2062	43.0930%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1343019.979
5573540	8/3/2014	208	1.07	274.44	2062	43.0930%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1343019.979
5573540	7/13/1997	207	1.07	273.37	2064	43.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1337781.638
5573540	7/23/2004	207	1.07	273.37	2064	43.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1337781.638
5573540	7/14/2010	207	1.07	273.37	2064	43.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1337781.638
5573540	10/2/2008	207	1.07	273.37	2064	43.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1337781.638
5573540	10/20/2008	207	1.07	273.37	2064	43.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1337781.638
5573540	9/23/2015	206	1.07	272.30	2069	43.2393%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1332543.297
5573540	5/6/2010	205	1.07	271.23	2070	43.2602%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1327304.956

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/16/2005	204	1.07	270.16	2071	43.2811%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1322066.615
5573540	7/20/2004	204	1.07	270.16	2071	43.2811%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1322066.615
5573540	5/18/2000	203	1.07	269.09	2073	43.3229%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1316828.274
5573540	7/28/1999	202	1.07	268.02	2074	43.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1311589.933
5573540	7/4/2002	202	1.07	268.02	2074	43.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1311589.933
5573540	9/2/1992	202	1.07	268.02	2074	43.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1311589.933
5573540	8/2/2003	201	1.07	266.95	2077	43.4065%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1306351.592
5573540	10/18/2008	201	1.07	266.95	2077	43.4065%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1306351.592
5573540	5/1/1992	200	1.07	265.88	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1301113.251
5573540	5/25/2000	200	1.07	265.88	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1301113.251
5573540	8/26/2004	200	1.07	265.88	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1301113.251
5573540	8/5/2014	200	1.07	265.88	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1301113.251
5573540	10/19/2008	200	1.07	265.88	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1301113.251
5573540	10/20/2009	200	1.07	265.88	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1301113.251
5573540	5/13/2001	199	1.07	264.80	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1295874.91
5573540	5/8/2015	199	1.07	264.80	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1295874.91
5573540	7/17/1999	199	1.07	264.80	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1295874.91
5573540	7/24/2000	199	1.07	264.80	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1295874.91
5573540	7/17/2013	199	1.07	264.80	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1295874.91
5573540	10/4/2008	199	1.07	264.80	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1295874.91
5573540	7/3/2002	198	1.07	263.73	2091	43.6991%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1290636.569
5573540	5/2/2015	197	1.07	262.66	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1285398.228
5573540	6/27/2001	197	1.07	262.66	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1285398.228
5573540	7/13/1994	197	1.07	262.66	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1285398.228
5573540	7/31/1998	197	1.07	262.66	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1285398.228
5573540	7/25/2004	197	1.07	262.66	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1285398.228
5573540	10/14/2008	197	1.07	262.66	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1285398.228
5573540	5/21/2001	196	1.07	261.59	2098	43.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1280159.887
5573540	6/4/2003	196	1.07	261.59	2098	43.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1280159.887
5573540	7/23/2010	196	1.07	261.59	2098	43.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1280159.887
5573540	9/7/2004	196	1.07	261.59	2098	43.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1280159.887
5573540	6/25/1997	195	1.07	260.52	2102	43.9289%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1274921.545
5573540	7/8/2007	195	1.07	260.52	2102	43.9289%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1274921.545
5573540	8/4/2009	194	1.07	259.45	2104	43.9707%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1269683.204
5573540	5/8/2005	193	1.07	258.38	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1264444.863
5573540	6/12/1992	193	1.07	258.38	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1264444.863
5573540	7/14/1997	193	1.07	258.38	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1264444.863
5573540	7/19/2010	193	1.07	258.38	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1264444.863
5573540	8/6/2000	193	1.07	258.38	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1264444.863
5573540	8/4/2008	193	1.07	258.38	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1264444.863
5573540	5/12/2011	192	1.07	257.31	2111	44.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1259206.522
5573540	5/30/1993	191	1.07	256.24	2112	44.1379%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1253968.181
5573540	7/31/2015	191	1.07	256.24	2112	44.1379%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1253968.181
5573540	10/16/2009	191	1.07	256.24	2112	44.1379%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1253968.181
5573540	10/5/2008	190	1.07	255.17	2115	44.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1248729.84
5573540	5/8/2007	189	1.07	254.10	2116	44.2215%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1243491.499

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/12/1992	189	1.07	254.10	2116	44.2215%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1243491.499
5573540	8/1/2015	189	1.07	254.10	2116	44.2215%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1243491.499
5573540	5/27/2007	188	1.07	253.03	2119	44.2842%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1238253.158
5573540	7/20/2013	188	1.07	253.03	2119	44.2842%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1238253.158
5573540	8/21/1990	188	1.07	253.03	2119	44.2842%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1238253.158
5573540	7/6/2011	186	1.07	250.89	2122	44.3469%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1227776.476
5573540	5/15/2005	185	1.07	249.82	2123	44.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1222538.135
5573540	7/4/1992	185	1.07	249.82	2123	44.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1222538.135
5573540	7/3/1996	185	1.07	249.82	2123	44.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1222538.135
5573540	7/24/1998	185	1.07	249.82	2123	44.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1222538.135
5573540	5/26/1993	184	1.07	248.75	2127	44.4514%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1217299.794
5573540	8/3/2003	184	1.07	248.75	2127	44.4514%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1217299.794
5573540	8/6/2014	184	1.07	248.75	2127	44.4514%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1217299.794
5573540	5/28/2015	183	1.07	247.68	2130	44.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1212061.453
5573540	7/20/1990	183	1.07	247.68	2130	44.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1212061.453
5573540	8/8/1991	183	1.07	247.68	2130	44.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1212061.453
5573540	9/11/1992	183	1.07	247.68	2130	44.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1212061.453
5573540	10/3/2008	183	1.07	247.68	2130	44.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1212061.453
5573540	7/23/1996	182	1.07	246.61	2135	44.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1206823.112
5573540	5/30/2003	181	1.07	245.54	2136	44.6395%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1201584.77
5573540	10/15/2000	181	1.07	245.54	2136	44.6395%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1201584.77
5573540	5/12/1992	180	1.07	244.47	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1196346.429
5573540	6/25/2003	180	1.07	244.47	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1196346.429
5573540	7/6/1996	180	1.07	244.47	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1196346.429
5573540	7/7/2002	180	1.07	244.47	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1196346.429
5573540	8/29/1997	180	1.07	244.47	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1196346.429
5573540	8/1/2014	180	1.07	244.47	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1196346.429
5573540	8/4/2014	180	1.07	244.47	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1196346.429
5573540	5/31/2003	179	1.07	243.40	2145	44.8276%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1191108.088
5573540	6/2/2007	179	1.07	243.40	2145	44.8276%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1191108.088
5573540	9/1/1993	178	1.07	242.33	2147	44.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1185869.747
5573540	5/26/2007	177	1.07	241.26	2148	44.8903%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1180631.406
5573540	5/30/2001	176	1.07	240.19	2149	44.9112%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1175393.065
5573540	8/10/2014	176	1.07	240.19	2149	44.9112%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1175393.065
5573540	6/7/2003	175	1.07	239.11	2151	44.9530%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1170154.724
5573540	6/3/2007	175	1.07	239.11	2151	44.9530%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1170154.724
5573540	7/26/2003	175	1.07	239.11	2151	44.9530%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1170154.724
5573540	7/16/2010	175	1.07	239.11	2151	44.9530%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1170154.724
5573540	8/11/2006	175	1.07	239.11	2151	44.9530%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1170154.724
5573540	7/30/2015	174	1.07	238.04	2156	45.0575%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1164916.383
5573540	8/25/2006	174	1.07	238.04	2156	45.0575%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1164916.383
5573540	10/6/2008	173	1.07	236.97	2158	45.0993%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1159678.042
5573540	5/29/2015	172	1.07	235.90	2159	45.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1154439.701
5573540	8/4/2003	172	1.07	235.90	2159	45.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1154439.701
5573540	8/3/2015	172	1.07	235.90	2159	45.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1154439.701
5573540	7/15/2010	171	1.07	234.83	2162	45.1829%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1149201.36

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/6/2009	171	1.07	234.83	2162	45.1829%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1149201.36
5573540	5/16/1992	170	1.07	233.76	2164	45.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1143963.019
5573540	6/5/2007	170	1.07	233.76	2164	45.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1143963.019
5573540	7/31/1990	170	1.07	233.76	2164	45.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1143963.019
5573540	6/1/2001	168	1.07	231.62	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1133486.336
5573540	6/4/2007	168	1.07	231.62	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1133486.336
5573540	7/19/1990	168	1.07	231.62	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1133486.336
5573540	7/13/1996	168	1.07	231.62	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1133486.336
5573540	7/20/1998	168	1.07	231.62	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1133486.336
5573540	7/27/2003	168	1.07	231.62	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1133486.336
5573540	7/28/2003	168	1.07	231.62	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1133486.336
5573540	5/23/1997	167	1.07	230.55	2174	45.4336%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1128247.995
5573540	5/17/2000	167	1.07	230.55	2174	45.4336%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1128247.995
5573540	6/6/2003	167	1.07	230.55	2174	45.4336%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1128247.995
5573540	7/29/2009	167	1.07	230.55	2174	45.4336%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1128247.995
5573540	9/12/2008	167	1.07	230.55	2174	45.4336%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1128247.995
5573540	7/29/2003	166	1.07	229.48	2179	45.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1123009.654
5573540	7/30/2003	165	1.07	228.41	2180	45.5590%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1117771.313
5573540	5/14/2005	164	1.07	227.34	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1112532.972
5573540	5/7/2015	164	1.07	227.34	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1112532.972
5573540	7/31/2003	164	1.07	227.34	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1112532.972
5573540	8/19/1993	164	1.07	227.34	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1112532.972
5573540	8/3/2009	164	1.07	227.34	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1112532.972
5573540	8/23/2014	164	1.07	227.34	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1112532.972
5573540	7/9/1999	163	1.07	226.27	2187	45.7053%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1107294.631
5573540	5/26/2006	162	1.07	225.20	2188	45.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1102056.29
5573540	10/8/2000	162	1.07	225.20	2188	45.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1102056.29
5573540	5/23/2007	161	1.07	224.13	2190	45.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1096817.949
5573540	6/13/2005	160	1.07	223.06	2191	45.7889%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1091579.608
5573540	5/4/2003	159	1.07	221.99	2192	45.8098%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1086341.267
5573540	7/22/2009	159	1.07	221.99	2192	45.8098%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1086341.267
5573540	7/31/2014	159	1.07	221.99	2192	45.8098%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1086341.267
5573540	7/29/2015	159	1.07	221.99	2192	45.8098%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1086341.267
5573540	8/1/1998	159	1.07	221.99	2192	45.8098%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1086341.267
5573540	5/20/2005	158	1.07	220.92	2197	45.9143%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1081102.926
5573540	7/22/2010	158	1.07	220.92	2197	45.9143%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1081102.926
5573540	8/2/1998	158	1.07	220.92	2197	45.9143%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1081102.926
5573540	6/16/1992	157	1.07	219.85	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1075864.585
5573540	6/6/2007	157	1.07	219.85	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1075864.585
5573540	7/25/2009	157	1.07	219.85	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1075864.585
5573540	8/5/1990	157	1.07	219.85	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1075864.585
5573540	8/5/2006	157	1.07	219.85	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1075864.585
5573540	8/2/2015	157	1.07	219.85	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1075864.585
5573540	6/2/1992	156	1.07	218.78	2206	46.1024%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1070626.244
5573540	6/28/1993	156	1.07	218.78	2206	46.1024%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1070626.244
5573540	7/27/2009	156	1.07	218.78	2206	46.1024%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1070626.244

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/17/2010	155	1.07	217.71	2209	46.1651%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1065387.903
5573540	5/25/2007	154	1.07	216.64	2210	46.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1060149.561
5573540	7/19/2013	154	1.07	216.64	2210	46.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1060149.561
5573540	7/27/2015	154	1.07	216.64	2210	46.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1060149.561
5573540	8/12/2006	154	1.07	216.64	2210	46.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1060149.561
5573540	8/27/2006	154	1.07	216.64	2210	46.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1060149.561
5573540	5/17/1992	153	1.07	215.57	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1054911.22
5573540	5/30/2005	153	1.07	215.57	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1054911.22
5573540	6/4/1992	153	1.07	215.57	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1054911.22
5573540	6/13/2006	153	1.07	215.57	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1054911.22
5573540	7/26/2009	153	1.07	215.57	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1054911.22
5573540	7/28/2009	153	1.07	215.57	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1054911.22
5573540	8/10/2006	152	1.07	214.49	2221	46.4159%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1049672.879
5573540	9/9/2008	152	1.07	214.49	2221	46.4159%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1049672.879
5573540	9/21/1992	151	1.07	213.42	2223	46.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1044434.538
5573540	5/13/1992	150	1.07	212.35	2224	46.4786%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1039196.197
5573540	5/9/2014	150	1.07	212.35	2224	46.4786%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1039196.197
5573540	6/21/1994	150	1.07	212.35	2224	46.4786%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1039196.197
5573540	7/2/2002	150	1.07	212.35	2224	46.4786%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1039196.197
5573540	8/5/2009	150	1.07	212.35	2224	46.4786%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1039196.197
5573540	7/10/1995	149	1.07	211.28	2229	46.5831%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1033957.856
5573540	6/5/2003	148	1.07	210.21	2230	46.6040%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1028719.515
5573540	5/26/2005	147	1.07	209.14	2231	46.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1023481.174
5573540	5/31/2005	147	1.07	209.14	2231	46.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1023481.174
5573540	8/7/2000	146	1.07	208.07	2233	46.6667%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1018242.833
5573540	8/11/2014	146	1.07	208.07	2233	46.6667%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1018242.833
5573540	7/11/1994	145	1.07	207.00	2235	46.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1013004.492
5573540	7/26/1995	145	1.07	207.00	2235	46.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1013004.492
5573540	8/24/1990	145	1.07	207.00	2235	46.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1013004.492
5573540	5/1/2015	144	1.07	205.93	2238	46.7712%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1007766.151
5573540	6/1/2005	144	1.07	205.93	2238	46.7712%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1007766.151
5573540	7/3/1994	144	1.07	205.93	2238	46.7712%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1007766.151
5573540	8/25/1997	144	1.07	205.93	2238	46.7712%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1007766.151
5573540	6/10/2003	143	1.07	204.86	2242	46.8548%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1002527.81
5573540	8/1/2003	143	1.07	204.86	2242	46.8548%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1002527.81
5573540	6/20/1994	142	1.07	203.79	2244	46.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	997289.4686
5573540	6/9/2003	142	1.07	203.79	2244	46.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	997289.4686
5573540	5/29/2005	141	1.07	202.72	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	992051.1275
5573540	7/24/1992	141	1.07	202.72	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	992051.1275
5573540	7/14/1994	141	1.07	202.72	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	992051.1275
5573540	7/25/1995	141	1.07	202.72	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	992051.1275
5573540	8/5/2008	141	1.07	202.72	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	992051.1275
5573540	10/18/2001	141	1.07	202.72	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	992051.1275
5573540	5/7/2005	140	1.07	201.65	2252	47.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	986812.7865
5573540	5/21/2012	140	1.07	201.65	2252	47.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	986812.7865
5573540	5/22/2012	140	1.07	201.65	2252	47.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	986812.7865

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/6/1991	139	1.07	200.58	2255	47.1264%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	981574.4454
5573540	6/8/2003	139	1.07	200.58	2255	47.1264%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	981574.4454
5573540	6/20/2005	139	1.07	200.58	2255	47.1264%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	981574.4454
5573540	8/2/2009	139	1.07	200.58	2255	47.1264%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	981574.4454
5573540	6/21/2006	138	1.07	199.51	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	976336.1043
5573540	7/15/1994	138	1.07	199.51	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	976336.1043
5573540	7/16/1994	138	1.07	199.51	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	976336.1043
5573540	7/14/1996	138	1.07	199.51	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	976336.1043
5573540	7/18/2010	138	1.07	199.51	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	976336.1043
5573540	8/26/2006	138	1.07	199.51	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	976336.1043
5573540	7/17/1994	137	1.07	198.44	2265	47.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	971097.7632
5573540	7/21/2000	137	1.07	198.44	2265	47.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	971097.7632
5573540	7/24/2009	137	1.07	198.44	2265	47.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	971097.7632
5573540	8/6/2006	137	1.07	198.44	2265	47.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	971097.7632
5573540	10/18/2000	137	1.07	198.44	2265	47.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	971097.7632
5573540	9/3/2014	136	1.07	197.37	2270	47.4399%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	965859.4222
5573540	10/16/1992	136	1.07	197.37	2270	47.4399%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	965859.4222
5573540	6/27/1994	135	1.07	196.30	2272	47.4817%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	960621.0811
5573540	7/30/2009	135	1.07	196.30	2272	47.4817%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	960621.0811
5573540	8/10/1998	135	1.07	196.30	2272	47.4817%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	960621.0811
5573540	9/29/2015	135	1.07	196.30	2272	47.4817%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	960621.0811
5573540	6/21/1995	134	1.07	195.23	2276	47.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	955382.74
5573540	8/1/1990	134	1.07	195.23	2276	47.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	955382.74
5573540	9/12/1992	134	1.07	195.23	2276	47.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	955382.74
5573540	5/28/2006	133	1.07	194.16	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	950144.3989
5573540	6/20/1992	133	1.07	194.16	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	950144.3989
5573540	8/4/1990	133	1.07	194.16	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	950144.3989
5573540	8/8/2006	133	1.07	194.16	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	950144.3989
5573540	8/9/2006	133	1.07	194.16	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	950144.3989
5573540	9/29/1992	133	1.07	194.16	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	950144.3989
5573540	10/10/2003	133	1.07	194.16	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	950144.3989
5573540	6/10/1991	132	1.07	193.09	2286	47.7743%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	944906.0579
5573540	9/2/1993	132	1.07	193.09	2286	47.7743%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	944906.0579
5573540	9/12/1997	132	1.07	193.09	2286	47.7743%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	944906.0579
5573540	5/5/1995	131	1.07	192.02	2289	47.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	939667.7168
5573540	5/10/2001	131	1.07	192.02	2289	47.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	939667.7168
5573540	7/24/2007	131	1.07	192.02	2289	47.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	939667.7168
5573540	9/5/2004	131	1.07	192.02	2289	47.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	939667.7168
5573540	6/20/2000	130	1.07	190.95	2293	47.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	934429.3757
5573540	7/5/1994	130	1.07	190.95	2293	47.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	934429.3757
5573540	7/24/2013	130	1.07	190.95	2293	47.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	934429.3757
5573540	9/1/2002	130	1.07	190.95	2293	47.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	934429.3757
5573540	6/18/2006	129	1.07	189.88	2297	48.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	929191.0347
5573540	8/23/1995	129	1.07	189.88	2297	48.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	929191.0347
5573540	9/6/2004	129	1.07	189.88	2297	48.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	929191.0347
5573540	5/9/2000	128	1.07	188.80	2300	48.0669%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	923952.6936

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/2/2005	128	1.07	188.80	2300	48.0669%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	923952.6936
5573540	7/7/2008	128	1.07	188.80	2300	48.0669%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	923952.6936
5573540	7/23/2009	128	1.07	188.80	2300	48.0669%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	923952.6936
5573540	6/22/1994	127	1.07	187.73	2304	48.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	918714.3525
5573540	8/13/1990	127	1.07	187.73	2304	48.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	918714.3525
5573540	8/21/1995	127	1.07	187.73	2304	48.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	918714.3525
5573540	6/23/1994	126	1.07	186.66	2307	48.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	913476.0114
5573540	8/15/2010	126	1.07	186.66	2307	48.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	913476.0114
5573540	8/31/2002	125	1.07	185.59	2309	48.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	908237.6704
5573540	8/1/2009	125	1.07	185.59	2309	48.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	908237.6704
5573540	5/17/2005	123	1.07	183.45	2311	48.2968%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	897760.9882
5573540	5/28/2005	123	1.07	183.45	2311	48.2968%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	897760.9882
5573540	10/12/2000	123	1.07	183.45	2311	48.2968%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	897760.9882
5573540	5/24/1994	122	1.07	182.38	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	892522.6471
5573540	5/6/2014	122	1.07	182.38	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	892522.6471
5573540	6/9/2007	122	1.07	182.38	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	892522.6471
5573540	7/5/1992	122	1.07	182.38	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	892522.6471
5573540	9/10/2003	122	1.07	182.38	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	892522.6471
5573540	9/30/2015	122	1.07	182.38	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	892522.6471
5573540	8/15/1998	121	1.07	181.31	2320	48.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	887284.3061
5573540	8/7/2006	121	1.07	181.31	2320	48.4848%	Fecal_coliform	310	cfu/100mL	200	283.2	1375290.674	887284.3061
5573540	9/22/1992	121	1.07	181.31	2320	48.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	887284.3061
5573540	5/20/2001	120	1.07	180.24	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	882045.965
5573540	6/7/1991	120	1.07	180.24	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	882045.965
5573540	7/1/1992	120	1.07	180.24	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	882045.965
5573540	8/16/1992	120	1.07	180.24	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	882045.965
5573540	9/24/2015	120	1.07	180.24	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	882045.965
5573540	10/7/2003	120	1.07	180.24	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	882045.965
5573540	8/13/2006	119	1.07	179.17	2329	48.6729%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	876807.6239
5573540	8/12/2014	119	1.07	179.17	2329	48.6729%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	876807.6239
5573540	5/31/1992	118	1.07	178.10	2331	48.7147%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	871569.2829
5573540	8/6/2015	118	1.07	178.10	2331	48.7147%	Fecal_coliform	40	cfu/100mL	200	283.2	174313.8566	871569.2829
5573540	10/7/1990	118	1.07	178.10	2331	48.7147%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	871569.2829
5573540	5/19/2012	117	1.07	177.03	2334	48.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	866330.9418
5573540	7/25/1998	117	1.07	177.03	2334	48.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	866330.9418
5573540	8/18/1998	117	1.07	177.03	2334	48.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	866330.9418
5573540	9/10/2009	117	1.07	177.03	2334	48.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	866330.9418
5573540	7/25/2007	116	1.07	175.96	2338	48.8610%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	861092.6007
5573540	5/19/2001	115	1.07	174.89	2339	48.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	855854.2596
5573540	5/18/2012	115	1.07	174.89	2339	48.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	855854.2596
5573540	6/8/2007	115	1.07	174.89	2339	48.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	855854.2596
5573540	9/28/1992	114	1.07	173.82	2342	48.9446%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	850615.9186
5573540	5/27/2005	113	1.07	172.75	2343	48.9655%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	845377.5775
5573540	8/25/2014	113	1.07	172.75	2343	48.9655%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	845377.5775
5573540	5/20/2012	112	1.07	171.68	2345	49.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	840139.2364
5573540	7/28/2015	112	1.07	171.68	2345	49.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	840139.2364

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/17/2012	110	1.07	169.54	2347	49.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	829662.5543
5573540	7/13/1991	110	1.07	169.54	2347	49.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	829662.5543
5573540	9/4/2004	110	1.07	169.54	2347	49.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	829662.5543
5573540	10/11/2000	110	1.07	169.54	2347	49.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	829662.5543
5573540	6/17/1991	109	1.07	168.47	2351	49.1327%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	824424.2132
5573540	6/10/2007	109	1.07	168.47	2351	49.1327%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	824424.2132
5573540	8/31/2001	109	1.07	168.47	2351	49.1327%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	824424.2132
5573540	6/18/1992	108	1.07	167.40	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	819185.8721
5573540	6/21/1992	108	1.07	167.40	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	819185.8721
5573540	6/7/2007	108	1.07	167.40	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	819185.8721
5573540	8/7/1991	108	1.07	167.40	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	819185.8721
5573540	8/27/2014	108	1.07	167.40	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	819185.8721
5573540	9/10/2008	108	1.07	167.40	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	819185.8721
5573540	7/12/1991	107	1.07	166.33	2360	49.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	813947.5311
5573540	9/7/2008	107	1.07	166.33	2360	49.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	813947.5311
5573540	5/22/2000	106	1.07	165.26	2362	49.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	808709.19
5573540	7/20/2000	106	1.07	165.26	2362	49.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	808709.19
5573540	7/31/2013	106	1.07	165.26	2362	49.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	808709.19
5573540	8/20/1990	106	1.07	165.26	2362	49.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	808709.19
5573540	8/1/2013	106	1.07	165.26	2362	49.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	808709.19
5573540	8/30/2014	106	1.07	165.26	2362	49.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	808709.19
5573540	9/10/1997	106	1.07	165.26	2362	49.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	808709.19
5573540	6/7/2006	105	1.07	164.18	2369	49.5089%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	803470.8489
5573540	7/2/1996	105	1.07	164.18	2369	49.5089%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	803470.8489
5573540	9/2/2010	105	1.07	164.18	2369	49.5089%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	803470.8489
5573540	5/24/2007	104	1.07	163.11	2372	49.5716%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	798232.5078
5573540	6/19/1992	104	1.07	163.11	2372	49.5716%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	798232.5078
5573540	7/10/1994	104	1.07	163.11	2372	49.5716%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	798232.5078
5573540	8/5/2000	103	1.07	162.04	2375	49.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	792994.1668
5573540	6/28/1992	102	1.07	160.97	2376	49.6552%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	787755.8257
5573540	6/3/2005	102	1.07	160.97	2376	49.6552%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	787755.8257
5573540	7/27/1995	102	1.07	160.97	2376	49.6552%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	787755.8257
5573540	5/24/2001	101	1.07	159.90	2379	49.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	782517.4846
5573540	6/22/2013	101	1.07	159.90	2379	49.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	782517.4846
5573540	7/19/2006	101	1.07	159.90	2379	49.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	782517.4846
5573540	5/23/2012	100	1.07	158.83	2382	49.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	777279.1435
5573540	8/17/1992	100	1.07	158.83	2382	49.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	777279.1435
5573540	8/16/1999	100	1.07	158.83	2382	49.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	777279.1435
5573540	6/13/1992	99	1.07	157.76	2385	49.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	772040.8025
5573540	7/29/1996	99	1.07	157.76	2385	49.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	772040.8025
5573540	8/31/2014	99	1.07	157.76	2385	49.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	772040.8025
5573540	9/4/2014	99	1.07	157.76	2385	49.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	772040.8025
5573540	7/6/1992	98	1.07	156.69	2389	49.9269%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	766802.4614
5573540	7/18/2013	98	1.07	156.69	2389	49.9269%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	766802.4614
5573540	8/6/1990	98	1.07	156.69	2389	49.9269%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	766802.4614
5573540	9/1/2014	97	1.07	155.62	2392	49.9896%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	761564.1203

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/14/2006	96	1.07	154.55	2393	50.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	756325.7793
5573540	8/27/1993	96	1.07	154.55	2393	50.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	756325.7793
5573540	5/2/2012	95	1.07	153.48	2395	50.0522%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	751087.4382
5573540	8/23/1990	95	1.07	153.48	2395	50.0522%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	751087.4382
5573540	5/26/2000	94	1.07	152.41	2397	50.0940%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	745849.0971
5573540	7/9/2007	94	1.07	152.41	2397	50.0940%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	745849.0971
5573540	10/12/2001	94	1.07	152.41	2397	50.0940%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	745849.0971
5573540	6/30/1992	93	1.07	151.34	2400	50.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	740610.756
5573540	7/6/1994	93	1.07	151.34	2400	50.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	740610.756
5573540	8/30/2001	93	1.07	151.34	2400	50.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	740610.756
5573540	9/7/2006	93	1.07	151.34	2400	50.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	740610.756
5573540	9/6/2006	92	1.07	150.27	2404	50.2403%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	735372.415
5573540	6/2/2001	91	1.07	149.20	2405	50.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	730134.0739
5573540	7/21/2004	91	1.07	149.20	2405	50.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	730134.0739
5573540	7/26/2004	91	1.07	149.20	2405	50.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	730134.0739
5573540	9/13/1992	91	1.07	149.20	2405	50.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	730134.0739
5573540	9/9/2004	91	1.07	149.20	2405	50.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	730134.0739
5573540	9/5/2006	91	1.07	149.20	2405	50.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	730134.0739
5573540	6/1/1992	90	1.07	148.13	2411	50.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	724895.7328
5573540	8/18/1992	90	1.07	148.13	2411	50.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	724895.7328
5573540	7/7/1994	89	1.07	147.06	2413	50.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	719657.3918
5573540	7/8/1994	89	1.07	147.06	2413	50.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	719657.3918
5573540	7/31/2009	89	1.07	147.06	2413	50.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	719657.3918
5573540	7/9/1994	88	1.07	145.99	2416	50.4911%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	714419.0507
5573540	9/2/2002	88	1.07	145.99	2416	50.4911%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	714419.0507
5573540	6/22/2005	87	1.07	144.92	2418	50.5329%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	709180.7096
5573540	8/3/1998	86	1.07	143.85	2419	50.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	703942.3685
5573540	5/9/2007	85	1.07	142.78	2420	50.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	698704.0275
5573540	7/6/2001	85	1.07	142.78	2420	50.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	698704.0275
5573540	7/11/2011	85	1.07	142.78	2420	50.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	698704.0275
5573540	8/8/2008	85	1.07	142.78	2420	50.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	698704.0275
5573540	6/23/2005	84	1.07	141.71	2424	50.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	693465.6864
5573540	7/22/1996	84	1.07	141.71	2424	50.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	693465.6864
5573540	7/15/2011	84	1.07	141.71	2424	50.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	693465.6864
5573540	8/10/2015	84	1.07	141.71	2424	50.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	693465.6864
5573540	6/18/1991	83	1.07	140.64	2428	50.7419%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	688227.3453
5573540	10/18/1992	83	1.07	140.64	2428	50.7419%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	688227.3453
5573540	5/18/1992	82	1.07	139.57	2430	50.7837%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	682989.0042
5573540	6/24/2005	82	1.07	139.57	2430	50.7837%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	682989.0042
5573540	9/18/2006	82	1.07	139.57	2430	50.7837%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	682989.0042
5573540	6/3/1993	81	1.07	138.49	2433	50.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	677750.6632
5573540	6/25/2005	81	1.07	138.49	2433	50.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	677750.6632
5573540	7/5/2006	81	1.07	138.49	2433	50.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	677750.6632
5573540	8/20/2014	81	1.07	138.49	2433	50.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	677750.6632
5573540	6/3/2001	80	1.07	137.42	2437	50.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	672512.3221
5573540	7/18/1994	80	1.07	137.42	2437	50.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	672512.3221

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/21/1998	80	1.07	137.42	2437	50.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	672512.3221
5573540	7/23/2007	80	1.07	137.42	2437	50.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	672512.3221
5573540	8/19/1992	80	1.07	137.42	2437	50.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	672512.3221
5573540	9/11/2006	80	1.07	137.42	2437	50.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	672512.3221
5573540	6/27/2006	79	1.07	136.35	2443	51.0554%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	667273.981
5573540	8/8/1993	79	1.07	136.35	2443	51.0554%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	667273.981
5573540	9/21/2006	79	1.07	136.35	2443	51.0554%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	667273.981
5573540	8/22/1990	78	1.07	135.28	2446	51.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	662035.64
5573540	8/6/2009	78	1.07	135.28	2446	51.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	662035.64
5573540	8/22/2009	78	1.07	135.28	2446	51.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	662035.64
5573540	8/14/2010	78	1.07	135.28	2446	51.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	662035.64
5573540	7/11/2006	77	1.07	134.21	2450	51.2017%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	656797.2989
5573540	7/25/2013	77	1.07	134.21	2450	51.2017%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	656797.2989
5573540	8/2/2013	77	1.07	134.21	2450	51.2017%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	656797.2989
5573540	6/17/1995	76	1.07	133.14	2453	51.2644%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	651558.9578
5573540	5/16/2012	75	1.07	132.07	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	646320.6167
5573540	6/29/1992	75	1.07	132.07	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	646320.6167
5573540	6/21/2005	75	1.07	132.07	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	646320.6167
5573540	8/23/2009	75	1.07	132.07	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	646320.6167
5573540	9/3/1990	75	1.07	132.07	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	646320.6167
5573540	9/10/2006	75	1.07	132.07	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	646320.6167
5573540	9/22/2006	75	1.07	132.07	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	646320.6167
5573540	5/8/2000	74	1.07	131.00	2461	51.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	641082.2757
5573540	7/30/1998	74	1.07	131.00	2461	51.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	641082.2757
5573540	8/7/2009	74	1.07	131.00	2461	51.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	641082.2757
5573540	8/8/2009	74	1.07	131.00	2461	51.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	641082.2757
5573540	8/9/2009	74	1.07	131.00	2461	51.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	641082.2757
5573540	9/26/2015	74	1.07	131.00	2461	51.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	641082.2757
5573540	5/4/2000	73	1.07	129.93	2467	51.5569%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	635843.9346
5573540	7/14/1991	73	1.07	129.93	2467	51.5569%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	635843.9346
5573540	8/8/2000	73	1.07	129.93	2467	51.5569%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	635843.9346
5573540	9/19/2006	73	1.07	129.93	2467	51.5569%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	635843.9346
5573540	9/20/2006	73	1.07	129.93	2467	51.5569%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	635843.9346
5573540	10/31/1995	73	1.07	129.93	2467	51.5569%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	635843.9346
5573540	6/24/2006	72	1.07	128.86	2473	51.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	630605.5935
5573540	6/26/2006	72	1.07	128.86	2473	51.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	630605.5935
5573540	8/13/2008	72	1.07	128.86	2473	51.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	630605.5935
5573540	9/4/2006	72	1.07	128.86	2473	51.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	630605.5935
5573540	9/14/2006	72	1.07	128.86	2473	51.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	630605.5935
5573540	9/25/2015	72	1.07	128.86	2473	51.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	630605.5935
5573540	7/22/2004	71	1.07	127.79	2479	51.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	625367.2524
5573540	8/14/2006	71	1.07	127.79	2479	51.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	625367.2524
5573540	9/28/2015	71	1.07	127.79	2479	51.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	625367.2524
5573540	5/9/2001	70	1.07	126.72	2482	51.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	620128.9114
5573540	6/7/2005	70	1.07	126.72	2482	51.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	620128.9114
5573540	8/13/2014	70	1.07	126.72	2482	51.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	620128.9114

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/15/2006	70	1.07	126.72	2482	51.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	620128.9114
5573540	9/16/2006	70	1.07	126.72	2482	51.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	620128.9114
5573540	10/27/1995	70	1.07	126.72	2482	51.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	620128.9114
5573540	5/31/2012	69	1.07	125.65	2488	51.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	614890.5703
5573540	6/25/2006	69	1.07	125.65	2488	51.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	614890.5703
5573540	6/28/2006	69	1.07	125.65	2488	51.9958%	Fecal_coliform	940	cfu/100mL	200	283.2	2889985.68	614890.5703
5573540	7/27/2013	69	1.07	125.65	2488	51.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	614890.5703
5573540	8/21/2006	69	1.07	125.65	2488	51.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	614890.5703
5573540	8/11/2015	69	1.07	125.65	2488	51.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	614890.5703
5573540	10/20/1995	69	1.07	125.65	2488	51.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	614890.5703
5573540	7/12/1999	68	1.07	124.58	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	609652.2292
5573540	8/22/2006	68	1.07	124.58	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	609652.2292
5573540	9/12/2006	68	1.07	124.58	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	609652.2292
5573540	9/13/2006	68	1.07	124.58	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	609652.2292
5573540	9/17/2006	68	1.07	124.58	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	609652.2292
5573540	9/1/2012	68	1.07	124.58	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	609652.2292
5573540	10/31/1993	68	1.07	124.58	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	609652.2292
5573540	5/14/2012	67	1.07	123.51	2502	52.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	604413.8882
5573540	8/14/1990	67	1.07	123.51	2502	52.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	604413.8882
5573540	8/12/2008	67	1.07	123.51	2502	52.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	604413.8882
5573540	6/1/1994	66	1.07	122.44	2505	52.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	599175.5471
5573540	7/24/1995	66	1.07	122.44	2505	52.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	599175.5471
5573540	7/26/2013	66	1.07	122.44	2505	52.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	599175.5471
5573540	6/27/1993	65	1.07	121.37	2508	52.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	593937.206
5573540	6/29/2006	65	1.07	121.37	2508	52.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	593937.206
5573540	6/30/2006	64	1.07	120.30	2510	52.4556%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	588698.8649
5573540	7/11/1999	64	1.07	120.30	2510	52.4556%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	588698.8649
5573540	7/6/2006	64	1.07	120.30	2510	52.4556%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	588698.8649
5573540	9/11/2008	64	1.07	120.30	2510	52.4556%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	588698.8649
5573540	6/26/2005	63	1.07	119.23	2514	52.5392%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	583460.5239
5573540	5/4/2012	62	1.07	118.16	2515	52.5601%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	578222.1828
5573540	6/27/1992	62	1.07	118.16	2515	52.5601%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	578222.1828
5573540	6/6/2005	62	1.07	118.16	2515	52.5601%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	578222.1828
5573540	7/7/1996	62	1.07	118.16	2515	52.5601%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	578222.1828
5573540	8/11/2003	62	1.07	118.16	2515	52.5601%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	578222.1828
5573540	9/13/1997	62	1.07	118.16	2515	52.5601%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	578222.1828
5573540	5/14/2001	61	1.07	117.09	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	572983.8417
5573540	7/19/2000	61	1.07	117.09	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	572983.8417
5573540	8/3/2013	61	1.07	117.09	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	572983.8417
5573540	8/18/2014	61	1.07	117.09	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	572983.8417
5573540	9/9/2006	61	1.07	117.09	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	572983.8417
5573540	9/27/2015	61	1.07	117.09	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	572983.8417
5573540	6/8/2005	60	1.07	116.02	2527	52.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	567745.5006
5573540	7/15/1996	60	1.07	116.02	2527	52.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	567745.5006
5573540	7/8/2002	60	1.07	116.02	2527	52.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	567745.5006
5573540	9/24/2006	60	1.07	116.02	2527	52.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	567745.5006

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/28/1995	60	1.07	116.02	2527	52.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	567745.5006
5573540	7/21/1997	59	1.07	114.95	2532	52.9154%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	562507.1596
5573540	7/5/2001	59	1.07	114.95	2532	52.9154%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	562507.1596
5573540	8/3/1990	59	1.07	114.95	2532	52.9154%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	562507.1596
5573540	8/26/2014	59	1.07	114.95	2532	52.9154%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	562507.1596
5573540	9/8/2006	59	1.07	114.95	2532	52.9154%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	562507.1596
5573540	10/21/2009	59	1.07	114.95	2532	52.9154%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	562507.1596
5573540	9/23/2006	58	1.07	113.87	2538	53.0408%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	557268.8185
5573540	10/5/2000	58	1.07	113.87	2538	53.0408%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	557268.8185
5573540	8/14/2008	57	1.07	112.80	2540	53.0825%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	552030.4774
5573540	8/3/2010	57	1.07	112.80	2540	53.0825%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	552030.4774
5573540	6/11/2007	56	1.07	111.73	2542	53.1243%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	546792.1364
5573540	8/24/2009	56	1.07	111.73	2542	53.1243%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	546792.1364
5573540	8/10/2009	55	1.07	110.66	2544	53.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	541553.7953
5573540	9/2/1990	55	1.07	110.66	2544	53.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	541553.7953
5573540	9/11/2003	55	1.07	110.66	2544	53.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	541553.7953
5573540	10/16/2001	55	1.07	110.66	2544	53.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	541553.7953
5573540	10/29/2001	55	1.07	110.66	2544	53.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	541553.7953
5573540	10/19/2004	55	1.07	110.66	2544	53.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	541553.7953
5573540	8/6/1991	54	1.07	109.59	2550	53.2915%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	536315.4542
5573540	9/12/2003	54	1.07	109.59	2550	53.2915%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	536315.4542
5573540	9/26/2006	54	1.07	109.59	2550	53.2915%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	536315.4542
5573540	10/29/1995	54	1.07	109.59	2550	53.2915%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	536315.4542
5573540	5/5/2010	53	1.07	108.52	2554	53.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	531077.1131
5573540	6/11/2005	53	1.07	108.52	2554	53.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	531077.1131
5573540	7/21/1996	53	1.07	108.52	2554	53.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	531077.1131
5573540	7/29/2000	53	1.07	108.52	2554	53.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	531077.1131
5573540	8/5/2010	53	1.07	108.52	2554	53.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	531077.1131
5573540	7/19/1999	52	1.07	107.45	2559	53.4796%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	525838.7721
5573540	8/2/1990	52	1.07	107.45	2559	53.4796%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	525838.7721
5573540	9/5/1997	52	1.07	107.45	2559	53.4796%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	525838.7721
5573540	9/5/2014	52	1.07	107.45	2559	53.4796%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	525838.7721
5573540	10/30/1995	52	1.07	107.45	2559	53.4796%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	525838.7721
5573540	6/3/1992	51	1.07	106.38	2564	53.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	520600.431
5573540	7/26/2007	51	1.07	106.38	2564	53.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	520600.431
5573540	7/30/2013	51	1.07	106.38	2564	53.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	520600.431
5573540	8/6/2010	51	1.07	106.38	2564	53.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	520600.431
5573540	9/1/1990	51	1.07	106.38	2564	53.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	520600.431
5573540	9/13/2003	51	1.07	106.38	2564	53.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	520600.431
5573540	9/25/2006	51	1.07	106.38	2564	53.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	520600.431
5573540	5/27/2006	50	1.07	105.31	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	515362.0899
5573540	7/10/1999	50	1.07	105.31	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	515362.0899
5573540	8/20/1992	50	1.07	105.31	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	515362.0899
5573540	8/31/2003	50	1.07	105.31	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	515362.0899
5573540	9/14/2003	50	1.07	105.31	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	515362.0899
5573540	9/23/2005	50	1.07	105.31	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	515362.0899

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/21/1995	50	1.07	105.31	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	515362.0899
5573540	10/20/2005	50	1.07	105.31	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	515362.0899
5573540	6/19/1991	49	1.07	104.24	2579	53.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	510123.7488
5573540	7/19/1997	49	1.07	104.24	2579	53.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	510123.7488
5573540	7/9/2001	49	1.07	104.24	2579	53.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	510123.7488
5573540	8/31/1990	49	1.07	104.24	2579	53.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	510123.7488
5573540	8/31/1992	49	1.07	104.24	2579	53.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	510123.7488
5573540	8/15/1995	49	1.07	104.24	2579	53.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	510123.7488
5573540	7/1/2006	48	1.07	103.17	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	504885.4078
5573540	8/15/1990	48	1.07	103.17	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	504885.4078
5573540	8/4/1998	48	1.07	103.17	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	504885.4078
5573540	10/26/1995	48	1.07	103.17	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	504885.4078
5573540	10/8/2009	48	1.07	103.17	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	504885.4078
5573540	5/5/2004	47	1.07	102.10	2590	54.1275%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	499647.0667
5573540	5/19/2005	47	1.07	102.10	2590	54.1275%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	499647.0667
5573540	6/22/1992	47	1.07	102.10	2590	54.1275%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	499647.0667
5573540	6/22/2007	47	1.07	102.10	2590	54.1275%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	499647.0667
5573540	8/19/1998	47	1.07	102.10	2590	54.1275%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	499647.0667
5573540	8/4/2010	47	1.07	102.10	2590	54.1275%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	499647.0667
5573540	8/7/2010	47	1.07	102.10	2590	54.1275%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	499647.0667
5573540	6/8/1991	46	1.07	101.03	2597	54.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	494408.7256
5573540	6/5/2005	46	1.07	101.03	2597	54.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	494408.7256
5573540	6/23/2006	46	1.07	101.03	2597	54.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	494408.7256
5573540	8/9/1991	46	1.07	101.03	2597	54.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	494408.7256
5573540	8/5/2015	46	1.07	101.03	2597	54.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	494408.7256
5573540	9/5/2009	46	1.07	101.03	2597	54.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	494408.7256
5573540	5/18/2001	45	1.07	99.96	2603	54.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489170.3846
5573540	7/4/2006	45	1.07	99.96	2603	54.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489170.3846
5573540	8/8/2010	45	1.07	99.96	2603	54.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489170.3846
5573540	5/2/1990	44	1.07	98.89	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	483932.0435
5573540	6/20/2001	44	1.07	98.89	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	483932.0435
5573540	7/7/2006	44	1.07	98.89	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	483932.0435
5573540	9/4/1990	44	1.07	98.89	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	483932.0435
5573540	9/11/1997	44	1.07	98.89	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	483932.0435
5573540	9/10/2004	44	1.07	98.89	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	483932.0435
5573540	9/25/2005	44	1.07	98.89	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	483932.0435
5573540	10/11/2001	44	1.07	98.89	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	483932.0435
5573540	10/16/2006	44	1.07	98.89	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	483932.0435
5573540	10/20/2004	43	1.07	97.82	2615	54.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	478693.7024
5573540	6/17/2006	42	1.07	96.75	2616	54.6708%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	473455.3613
5573540	7/30/2000	42	1.07	96.75	2616	54.6708%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	473455.3613
5573540	9/2/1997	42	1.07	96.75	2616	54.6708%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	473455.3613
5573540	10/29/1998	42	1.07	96.75	2616	54.6708%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	473455.3613
5573540	10/31/2013	42	1.07	96.75	2616	54.6708%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	473455.3613
5573540	5/18/2005	41	1.07	95.68	2621	54.7753%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	468217.0203
5573540	8/29/2009	41	1.07	95.68	2621	54.7753%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	468217.0203

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/15/2003	41	1.07	95.68	2621	54.7753%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	468217.0203
5573540	10/1/2015	41	1.07	95.68	2621	54.7753%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	468217.0203
5573540	6/4/2005	40	1.07	94.61	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	462978.6792
5573540	7/29/1999	40	1.07	94.61	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	462978.6792
5573540	7/22/2000	40	1.07	94.61	2625	54.8589%	Fecal_coliform	100	cfu/100mL	200	283.2	231489.3396	462978.6792
5573540	8/28/1998	40	1.07	94.61	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	462978.6792
5573540	9/11/2004	40	1.07	94.61	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	462978.6792
5573540	9/12/2004	40	1.07	94.61	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	462978.6792
5573540	10/25/1995	40	1.07	94.61	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	462978.6792
5573540	10/31/2006	40	1.07	94.61	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	462978.6792
5573540	7/30/2010	39	1.07	93.54	2633	55.0261%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457740.3381
5573540	9/4/2009	39	1.07	93.54	2633	55.0261%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457740.3381
5573540	9/10/2014	39	1.07	93.54	2633	55.0261%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457740.3381
5573540	5/7/2000	38	1.07	92.47	2636	55.0888%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	452501.997
5573540	7/28/2013	38	1.07	92.47	2636	55.0888%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	452501.997
5573540	10/5/1991	38	1.07	92.47	2636	55.0888%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	452501.997
5573540	10/13/2001	38	1.07	92.47	2636	55.0888%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	452501.997
5573540	6/28/1994	37	1.07	91.40	2640	55.1724%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	447263.656
5573540	7/30/1996	37	1.07	91.40	2640	55.1724%	Fecal_coliform	2400	cfu/100mL	200	283.2	5367163.872	447263.656
5573540	7/2/2006	37	1.07	91.40	2640	55.1724%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	447263.656
5573540	8/9/1990	37	1.07	91.40	2640	55.1724%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	447263.656
5573540	8/11/1998	37	1.07	91.40	2640	55.1724%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	447263.656
5573540	10/22/1995	37	1.07	91.40	2640	55.1724%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	447263.656
5573540	10/24/1995	37	1.07	91.40	2640	55.1724%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	447263.656
5573540	7/16/1997	36	1.07	90.33	2647	55.3187%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	442025.3149
5573540	7/25/2000	36	1.07	90.33	2647	55.3187%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	442025.3149
5573540	8/25/2009	36	1.07	90.33	2647	55.3187%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	442025.3149
5573540	9/19/2005	36	1.07	90.33	2647	55.3187%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	442025.3149
5573540	9/20/2015	36	1.07	90.33	2647	55.3187%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	442025.3149
5573540	5/6/2004	35	1.07	89.26	2652	55.4232%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	436786.9738
5573540	10/30/1998	35	1.07	89.26	2652	55.4232%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	436786.9738
5573540	10/21/2005	35	1.07	89.26	2652	55.4232%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	436786.9738
5573540	7/16/1996	34	1.07	88.18	2655	55.4859%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	431548.6328
5573540	7/8/2006	34	1.07	88.18	2655	55.4859%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	431548.6328
5573540	8/11/2008	34	1.07	88.18	2655	55.4859%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	431548.6328
5573540	8/21/2009	34	1.07	88.18	2655	55.4859%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	431548.6328
5573540	10/14/2001	34	1.07	88.18	2655	55.4859%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	431548.6328
5573540	10/6/2003	34	1.07	88.18	2655	55.4859%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	431548.6328
5573540	6/1/2012	33	1.07	87.11	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	426310.2917
5573540	7/8/1996	33	1.07	87.11	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	426310.2917
5573540	7/9/2006	33	1.07	87.11	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	426310.2917
5573540	8/17/1999	33	1.07	87.11	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	426310.2917
5573540	8/9/2015	33	1.07	87.11	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	426310.2917
5573540	9/16/2003	33	1.07	87.11	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	426310.2917
5573540	10/19/1995	33	1.07	87.11	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	426310.2917
5573540	10/6/1998	33	1.07	87.11	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	426310.2917

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/28/1998	33	1.07	87.11	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	426310.2917
5573540	10/8/1999	33	1.07	87.11	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	426310.2917
5573540	10/14/2003	33	1.07	87.11	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	426310.2917
5573540	7/8/2003	32	1.07	86.04	2672	55.8412%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	421071.9506
5573540	8/22/2015	32	1.07	86.04	2672	55.8412%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	421071.9506
5573540	9/9/1992	32	1.07	86.04	2672	55.8412%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	421071.9506
5573540	10/23/1995	32	1.07	86.04	2672	55.8412%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	421071.9506
5573540	6/4/2012	31	1.07	84.97	2676	55.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	415833.6095
5573540	7/12/1996	31	1.07	84.97	2676	55.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	415833.6095
5573540	8/13/1998	31	1.07	84.97	2676	55.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	415833.6095
5573540	8/18/2001	31	1.07	84.97	2676	55.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	415833.6095
5573540	8/23/2015	31	1.07	84.97	2676	55.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	415833.6095
5573540	7/11/1995	30	1.07	83.90	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	410595.2685
5573540	7/12/2005	30	1.07	83.90	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	410595.2685
5573540	9/27/2006	30	1.07	83.90	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	410595.2685
5573540	10/20/2003	30	1.07	83.90	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	410595.2685
5573540	6/9/2005	29	1.07	82.83	2685	56.1129%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	405356.9274
5573540	7/13/1999	29	1.07	82.83	2685	56.1129%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	405356.9274
5573540	7/3/2006	29	1.07	82.83	2685	56.1129%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	405356.9274
5573540	8/24/1995	29	1.07	82.83	2685	56.1129%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	405356.9274
5573540	9/14/1997	29	1.07	82.83	2685	56.1129%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	405356.9274
5573540	9/7/2012	29	1.07	82.83	2685	56.1129%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	405356.9274
5573540	10/18/1995	29	1.07	82.83	2685	56.1129%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	405356.9274
5573540	6/27/2005	28	1.07	81.76	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	400118.5863
5573540	7/28/1998	28	1.07	81.76	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	400118.5863
5573540	7/18/2005	28	1.07	81.76	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	400118.5863
5573540	8/8/1990	28	1.07	81.76	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	400118.5863
5573540	8/29/1998	28	1.07	81.76	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	400118.5863
5573540	8/15/2006	28	1.07	81.76	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	400118.5863
5573540	8/16/2012	28	1.07	81.76	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	400118.5863
5573540	9/17/2003	28	1.07	81.76	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	400118.5863
5573540	9/28/2006	28	1.07	81.76	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	400118.5863
5573540	10/21/1992	28	1.07	81.76	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	400118.5863
5573540	5/6/1995	27	1.07	80.69	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	394880.2452
5573540	5/25/2001	27	1.07	80.69	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	394880.2452
5573540	5/26/2001	27	1.07	80.69	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	394880.2452
5573540	5/7/2014	27	1.07	80.69	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	394880.2452
5573540	6/23/1991	27	1.07	80.69	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	394880.2452
5573540	7/27/2004	27	1.07	80.69	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	394880.2452
5573540	8/26/1997	27	1.07	80.69	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	394880.2452
5573540	9/18/2003	27	1.07	80.69	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	394880.2452
5573540	10/17/1995	27	1.07	80.69	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	394880.2452
5573540	6/19/2007	26	1.07	79.62	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	389641.9042
5573540	6/5/2012	26	1.07	79.62	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	389641.9042
5573540	7/22/1997	26	1.07	79.62	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	389641.9042
5573540	7/10/2001	26	1.07	79.62	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	389641.9042

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/14/2001	26	1.07	79.62	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	389641.9042
5573540	8/17/1990	26	1.07	79.62	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	389641.9042
5573540	8/29/1993	26	1.07	79.62	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	389641.9042
5573540	8/17/1998	26	1.07	79.62	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	389641.9042
5573540	8/12/2009	26	1.07	79.62	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	389641.9042
5573540	8/2/2010	26	1.07	79.62	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	389641.9042
5573540	9/28/1999	26	1.07	79.62	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	389641.9042
5573540	9/29/1999	26	1.07	79.62	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	389641.9042
5573540	9/19/2003	26	1.07	79.62	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	389641.9042
5573540	10/3/1992	26	1.07	79.62	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	389641.9042
5573540	10/15/1995	26	1.07	79.62	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	389641.9042
5573540	10/16/1995	26	1.07	79.62	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	389641.9042
5573540	6/26/1992	25	1.07	78.55	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	384403.5631
5573540	6/10/2005	25	1.07	78.55	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	384403.5631
5573540	6/20/2007	25	1.07	78.55	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	384403.5631
5573540	7/15/1991	25	1.07	78.55	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	384403.5631
5573540	8/15/2008	25	1.07	78.55	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	384403.5631
5573540	8/11/2010	25	1.07	78.55	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	384403.5631
5573540	9/26/2003	25	1.07	78.55	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	384403.5631
5573540	10/14/1995	25	1.07	78.55	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	384403.5631
5573540	10/11/2003	25	1.07	78.55	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	384403.5631
5573540	5/21/1992	24	1.07	77.48	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	379165.222
5573540	6/28/2001	24	1.07	77.48	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	379165.222
5573540	6/6/2012	24	1.07	77.48	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	379165.222
5573540	7/17/1996	24	1.07	77.48	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	379165.222
5573540	8/23/1997	24	1.07	77.48	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	379165.222
5573540	8/17/2006	24	1.07	77.48	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	379165.222
5573540	8/26/2009	24	1.07	77.48	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	379165.222
5573540	9/5/1990	24	1.07	77.48	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	379165.222
5573540	9/24/2000	24	1.07	77.48	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	379165.222
5573540	9/20/2003	24	1.07	77.48	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	379165.222
5573540	9/11/2009	24	1.07	77.48	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	379165.222
5573540	10/4/1991	24	1.07	77.48	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	379165.222
5573540	5/24/2012	23	1.07	76.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	373926.881
5573540	5/30/2012	23	1.07	76.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	373926.881
5573540	5/8/2014	23	1.07	76.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	373926.881
5573540	6/23/1992	23	1.07	76.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	373926.881
5573540	6/24/1992	23	1.07	76.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	373926.881
5573540	7/16/1999	23	1.07	76.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	373926.881
5573540	7/15/2005	23	1.07	76.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	373926.881
5573540	8/7/1990	23	1.07	76.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	373926.881
5573540	8/11/2009	23	1.07	76.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	373926.881
5573540	8/19/2009	23	1.07	76.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	373926.881
5573540	8/10/2010	23	1.07	76.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	373926.881
5573540	8/22/2010	23	1.07	76.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	373926.881
5573540	9/15/1997	23	1.07	76.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	373926.881

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/21/2003	23	1.07	76.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	373926.881
5573540	9/13/2004	23	1.07	76.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	373926.881
5573540	10/17/2001	23	1.07	76.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	373926.881
5573540	6/25/1992	22	1.07	75.34	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	368688.5399
5573540	7/9/1996	22	1.07	75.34	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	368688.5399
5573540	7/22/2007	22	1.07	75.34	2764	57.7638%	Fecal_coliform	433	cfu/100mL	200	283.2	798210.6888	368688.5399
5573540	7/29/2013	22	1.07	75.34	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	368688.5399
5573540	8/12/2010	22	1.07	75.34	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	368688.5399
5573540	8/5/2012	22	1.07	75.34	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	368688.5399
5573540	9/22/2003	22	1.07	75.34	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	368688.5399
5573540	9/27/2003	22	1.07	75.34	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	368688.5399
5573540	10/20/1992	22	1.07	75.34	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	368688.5399
5573540	10/13/1995	22	1.07	75.34	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	368688.5399
5573540	10/10/2001	22	1.07	75.34	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	368688.5399
5573540	10/31/2003	22	1.07	75.34	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	368688.5399
5573540	10/22/2012	22	1.07	75.34	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	368688.5399
5573540	6/18/1995	21	1.07	74.27	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	363450.1988
5573540	7/20/1999	21	1.07	74.27	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	363450.1988
5573540	7/16/2011	21	1.07	74.27	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	363450.1988
5573540	8/25/1990	21	1.07	74.27	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	363450.1988
5573540	8/5/2004	21	1.07	74.27	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	363450.1988
5573540	8/20/2009	21	1.07	74.27	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	363450.1988
5573540	8/28/2009	21	1.07	74.27	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	363450.1988
5573540	8/4/2013	21	1.07	74.27	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	363450.1988
5573540	8/14/2015	21	1.07	74.27	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	363450.1988
5573540	9/27/2011	21	1.07	74.27	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	363450.1988
5573540	10/12/2004	21	1.07	74.27	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	363450.1988
5573540	10/23/2012	21	1.07	74.27	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	363450.1988
5573540	7/10/1996	20	1.07	73.20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358211.8577
5573540	7/18/1996	20	1.07	73.20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358211.8577
5573540	7/10/2007	20	1.07	73.20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358211.8577
5573540	8/19/1990	20	1.07	73.20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358211.8577
5573540	8/30/1997	20	1.07	73.20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358211.8577
5573540	8/13/2009	20	1.07	73.20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358211.8577
5573540	8/27/2009	20	1.07	73.20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358211.8577
5573540	10/12/1995	20	1.07	73.20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358211.8577
5573540	10/21/2003	20	1.07	73.20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358211.8577
5573540	10/30/2003	20	1.07	73.20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358211.8577
5573540	10/18/2004	20	1.07	73.20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358211.8577
5573540	10/7/2005	20	1.07	73.20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358211.8577
5573540	6/28/2005	19	1.07	72.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352973.5167
5573540	6/21/2007	19	1.07	72.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352973.5167
5573540	7/19/1994	19	1.07	72.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352973.5167
5573540	7/11/1996	19	1.07	72.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352973.5167
5573540	7/26/2000	19	1.07	72.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352973.5167
5573540	7/5/2005	19	1.07	72.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352973.5167

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/20/2006	19	1.07	72.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352973.5167
5573540	7/13/2011	19	1.07	72.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352973.5167
5573540	8/16/2006	19	1.07	72.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352973.5167
5573540	8/21/2010	19	1.07	72.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352973.5167
5573540	8/21/2015	19	1.07	72.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352973.5167
5573540	9/30/1992	19	1.07	72.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352973.5167
5573540	9/23/2003	19	1.07	72.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352973.5167
5573540	9/29/2006	19	1.07	72.13	2801	58.5371%	Fecal_coliform	580	cfu/100mL	200	283.2	1023623.198	352973.5167
5573540	10/2/1992	19	1.07	72.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352973.5167
5573540	10/4/1992	19	1.07	72.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352973.5167
5573540	10/11/1995	19	1.07	72.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352973.5167
5573540	10/26/2003	19	1.07	72.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352973.5167
5573540	10/28/2003	19	1.07	72.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352973.5167
5573540	10/29/2003	19	1.07	72.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352973.5167
5573540	6/3/2012	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	7/28/1995	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	7/19/1996	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	7/31/2010	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	8/20/1998	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	8/24/1999	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	8/18/2000	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	8/2/2001	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	8/29/2003	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	8/6/2004	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	8/20/2004	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	8/9/2010	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	8/13/2010	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	8/23/2010	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	8/24/2015	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	9/1/1992	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	9/24/2003	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	9/28/2003	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	9/22/2010	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	10/7/1995	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	10/9/1995	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	10/10/1995	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	10/15/2001	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	10/22/2001	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	10/27/2003	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	10/31/2005	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	10/14/2012	18	1.07	71.06	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347735.1756
5573540	6/15/1991	17	1.07	69.99	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342496.8345
5573540	7/20/1996	17	1.07	69.99	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342496.8345
5573540	7/31/2000	17	1.07	69.99	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342496.8345
5573540	7/26/2006	17	1.07	69.99	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342496.8345
5573540	7/12/2011	17	1.07	69.99	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342496.8345

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/29/1991	17	1.07	69.99	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342496.8345
5573540	8/17/2000	17	1.07	69.99	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342496.8345
5573540	8/12/2005	17	1.07	69.99	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342496.8345
5573540	9/1/2001	17	1.07	69.99	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342496.8345
5573540	9/3/2002	17	1.07	69.99	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342496.8345
5573540	9/3/2008	17	1.07	69.99	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342496.8345
5573540	10/5/1992	17	1.07	69.99	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342496.8345
5573540	10/6/1995	17	1.07	69.99	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342496.8345
5573540	10/8/1995	17	1.07	69.99	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342496.8345
5573540	10/12/2003	17	1.07	69.99	2848	59.5193%	Fecal_coliform	1600	cfu/100mL	200	283.2	2739974.676	342496.8345
5573540	10/22/2003	17	1.07	69.99	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342496.8345
5573540	5/29/2012	16	1.07	68.92	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337258.4934
5573540	6/11/1991	16	1.07	68.92	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337258.4934
5573540	7/28/2004	16	1.07	68.92	2864	59.8537%	Fecal_coliform	693	cfu/100mL	200	283.2	1168600.68	337258.4934
5573540	7/11/2005	16	1.07	68.92	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337258.4934
5573540	7/10/2006	16	1.07	68.92	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337258.4934
5573540	7/27/2007	16	1.07	68.92	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337258.4934
5573540	8/27/1990	16	1.07	68.92	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337258.4934
5573540	8/21/1992	16	1.07	68.92	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337258.4934
5573540	8/18/1999	16	1.07	68.92	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337258.4934
5573540	8/1/2004	16	1.07	68.92	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337258.4934
5573540	8/2/2004	16	1.07	68.92	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337258.4934
5573540	8/24/2004	16	1.07	68.92	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337258.4934
5573540	8/9/2008	16	1.07	68.92	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337258.4934
5573540	9/6/1990	16	1.07	68.92	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337258.4934
5573540	9/16/1997	16	1.07	68.92	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337258.4934
5573540	9/6/2001	16	1.07	68.92	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337258.4934
5573540	9/26/2005	16	1.07	68.92	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337258.4934
5573540	9/9/2011	16	1.07	68.92	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337258.4934
5573540	10/19/2002	16	1.07	68.92	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337258.4934
5573540	10/25/2003	16	1.07	68.92	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337258.4934
5573540	6/15/2006	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	7/14/1999	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	7/30/1999	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	7/27/2000	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	7/3/2001	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	7/29/2001	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	7/4/2005	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	7/10/2005	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	8/23/1999	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	8/9/2000	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	8/23/2001	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	8/1/2010	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	8/16/2010	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	8/8/2015	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	9/25/2000	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/25/2003	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	9/29/2003	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	9/30/2003	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	9/14/2004	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	9/21/2012	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	10/17/1992	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	10/19/1998	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	10/20/2000	15	1.07	67.85	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332020.1524
5573540	6/17/1992	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	6/29/1994	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	6/29/2005	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	6/22/2006	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	7/15/1999	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	7/2/2003	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	7/30/2004	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	7/6/2005	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	7/8/2005	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	7/9/2005	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	7/19/2005	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	8/26/1990	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	8/6/1993	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	8/3/2004	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	8/4/2004	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	8/19/2005	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	9/19/2004	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	9/12/2009	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	9/2/2012	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	10/19/1992	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	10/20/1998	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	10/21/1998	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	10/9/1999	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	10/5/2001	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	10/13/2003	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	10/23/2003	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	10/13/2004	14	1.07	66.78	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	326781.8113
5573540	5/1/2012	13	1.07	65.71	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	321543.4702
5573540	5/15/2012	13	1.07	65.71	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	321543.4702
5573540	6/16/2006	13	1.07	65.71	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	321543.4702
5573540	6/18/2007	13	1.07	65.71	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	321543.4702
5573540	7/23/1997	13	1.07	65.71	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	321543.4702
5573540	7/7/2005	13	1.07	65.71	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	321543.4702
5573540	7/13/2005	13	1.07	65.71	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	321543.4702
5573540	8/2/2000	13	1.07	65.71	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	321543.4702
5573540	8/9/2004	13	1.07	65.71	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	321543.4702
5573540	8/7/2015	13	1.07	65.71	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	321543.4702
5573540	9/18/2004	13	1.07	65.71	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	321543.4702

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/20/2004	13	1.07	65.71	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	321543.4702
5573540	9/30/2006	13	1.07	65.71	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	321543.4702
5573540	10/23/2001	13	1.07	65.71	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	321543.4702
5573540	10/15/2003	13	1.07	65.71	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	321543.4702
5573540	10/24/2003	13	1.07	65.71	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	321543.4702
5573540	10/6/2009	13	1.07	65.71	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	321543.4702
5573540	5/30/1992	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	6/29/2001	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	6/30/2005	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	6/2/2012	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	7/17/1997	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	7/21/1999	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	7/28/2000	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	7/7/2001	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	7/3/2005	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	7/16/2005	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	8/28/1990	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	8/16/1995	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	8/24/1997	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	8/24/2001	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	8/23/2002	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	9/15/2004	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	9/16/2004	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	9/7/2010	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	10/23/1996	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	10/31/1998	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	10/9/2000	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	10/1/2003	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	10/8/2004	12	1.07	64.64	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316305.1292
5573540	6/7/2012	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	6/10/2012	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	7/31/1996	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	7/13/2001	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	7/14/2005	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	7/21/2006	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	8/12/1999	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	8/3/2000	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	8/19/2001	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	8/12/2003	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	8/7/2004	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	8/10/2008	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	8/14/2009	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	8/25/2015	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	9/6/1997	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	9/8/1997	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	9/17/2004	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/15/2005	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	9/13/2009	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	9/25/2012	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	10/6/1992	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	10/4/1995	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	10/22/1996	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	10/18/1998	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	10/27/1998	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	10/18/2002	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	10/23/2002	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	10/16/2003	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	10/12/2007	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	10/18/2012	11	1.07	63.56	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311066.7881
5573540	5/20/1992	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	5/6/2000	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	7/17/2007	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	8/22/1992	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	8/23/1992	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	8/24/1992	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	8/25/1992	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	8/26/1992	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	8/27/1992	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	8/28/1992	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	8/17/1997	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	8/8/2004	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	8/10/2004	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	8/16/2008	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	8/19/2015	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	8/20/2015	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	9/3/1991	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	9/2/2001	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	10/3/1995	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	10/5/1995	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	10/22/1998	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	10/24/2002	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	10/2/2003	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	10/11/2006	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	10/15/2007	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	10/16/2007	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	10/3/2013	10	1.07	62.49	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305828.447
5573540	6/12/2007	9.9	1.07	62.39	3031	63.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305304.6129
5573540	7/1/2005	9.9	1.07	62.39	3031	63.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305304.6129
5573540	8/18/1990	9.9	1.07	62.39	3031	63.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305304.6129
5573540	9/14/2009	9.9	1.07	62.39	3031	63.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305304.6129
5573540	10/14/2004	9.9	1.07	62.39	3031	63.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305304.6129
5573540	6/30/2001	9.8	1.07	62.28	3036	63.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	304780.7788

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/26/2011	9.8	1.07	62.28	3036	63.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	304780.7788
5573540	10/17/2012	9.8	1.07	62.28	3036	63.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	304780.7788
5573540	7/31/2004	9.7	1.07	62.17	3039	63.5110%	Fecal_coliform	420	cfu/100mL	200	283.2	638939.5838	304256.9447
5573540	7/2/2005	9.7	1.07	62.17	3039	63.5110%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	304256.9447
5573540	8/17/2014	9.7	1.07	62.17	3039	63.5110%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	304256.9447
5573540	9/28/2001	9.7	1.07	62.17	3039	63.5110%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	304256.9447
5573540	8/22/2014	9.6	1.07	62.07	3043	63.5946%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	303733.1106
5573540	10/17/2003	9.6	1.07	62.07	3043	63.5946%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	303733.1106
5573540	7/28/2007	9.5	1.07	61.96	3045	63.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	303209.2765
5573540	6/24/1991	9.4	1.07	61.85	3046	63.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	302685.4424
5573540	7/1/2001	9.4	1.07	61.85	3046	63.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	302685.4424
5573540	9/9/2001	9.4	1.07	61.85	3046	63.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	302685.4424
5573540	5/3/2012	9.3	1.07	61.75	3049	63.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	302161.6083
5573540	8/30/1991	9.3	1.07	61.75	3049	63.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	302161.6083
5573540	8/26/2015	9.3	1.07	61.75	3049	63.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	302161.6083
5573540	9/8/2012	9.3	1.07	61.75	3049	63.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	302161.6083
5573540	7/2/2001	9.2	1.07	61.64	3053	63.8036%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	301637.7742
5573540	7/10/2002	9.2	1.07	61.64	3053	63.8036%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	301637.7742
5573540	10/5/2003	9.2	1.07	61.64	3053	63.8036%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	301637.7742
5573540	6/11/2012	9.1	1.07	61.53	3056	63.8662%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	301113.94
5573540	7/15/2001	9.1	1.07	61.53	3056	63.8662%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	301113.94
5573540	8/21/2014	9.1	1.07	61.53	3056	63.8662%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	301113.94
5573540	9/21/2004	9.1	1.07	61.53	3056	63.8662%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	301113.94
5573540	10/5/1998	9.1	1.07	61.53	3056	63.8662%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	301113.94
5573540	10/29/2002	9	1.07	61.42	3061	63.9707%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	300590.1059
5573540	10/18/2003	9	1.07	61.42	3061	63.9707%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	300590.1059
5573540	9/6/1994	8.9	1.07	61.32	3063	64.0125%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	300066.2718
5573540	8/19/1999	8.8	1.07	61.21	3064	64.0334%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	299542.4377
5573540	10/3/2003	8.8	1.07	61.21	3064	64.0334%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	299542.4377
5573540	8/9/1997	8.7	1.07	61.10	3066	64.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	299018.6036
5573540	10/7/1998	8.7	1.07	61.10	3066	64.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	299018.6036
5573540	7/29/2007	8.6	1.07	61.00	3068	64.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298494.7695
5573540	8/25/2004	8.6	1.07	61.00	3068	64.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298494.7695
5573540	8/18/2015	8.6	1.07	61.00	3068	64.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298494.7695
5573540	7/24/1997	8.5	1.07	60.89	3071	64.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	297970.9354
5573540	8/19/2002	8.5	1.07	60.89	3071	64.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	297970.9354
5573540	9/26/1996	8.5	1.07	60.89	3071	64.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	297970.9354
5573540	9/8/2007	8.5	1.07	60.89	3071	64.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	297970.9354
5573540	9/9/2014	8.5	1.07	60.89	3071	64.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	297970.9354
5573540	10/9/2004	8.5	1.07	60.89	3071	64.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	297970.9354
5573540	10/15/2004	8.5	1.07	60.89	3071	64.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	297970.9354
5573540	7/27/2002	8.4	1.07	60.78	3078	64.3260%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	297447.1013
5573540	8/18/2004	8.4	1.07	60.78	3078	64.3260%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	297447.1013
5573540	8/22/2008	8.4	1.07	60.78	3078	64.3260%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	297447.1013
5573540	10/19/2003	8.4	1.07	60.78	3078	64.3260%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	297447.1013
5573540	7/16/2002	8.3	1.07	60.67	3082	64.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	296923.2672

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/14/2012	8.3	1.07	60.67	3082	64.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	296923.2672
5573540	9/9/1997	8.3	1.07	60.67	3082	64.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	296923.2672
5573540	10/6/2001	8.3	1.07	60.67	3082	64.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	296923.2672
5573540	10/4/2003	8.3	1.07	60.67	3082	64.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	296923.2672
5573540	8/10/1991	8.2	1.07	60.57	3087	64.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	296399.4331
5573540	9/7/2001	8.2	1.07	60.57	3087	64.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	296399.4331
5573540	6/17/2007	8.1	1.07	60.46	3089	64.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	295875.599
5573540	9/14/2005	8.1	1.07	60.46	3089	64.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	295875.599
5573540	10/25/2002	8.1	1.07	60.46	3089	64.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	295875.599
5573540	7/29/2004	8	1.07	60.35	3092	64.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	295351.7649
5573540	7/26/2005	8	1.07	60.35	3092	64.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	295351.7649
5573540	8/20/2010	8	1.07	60.35	3092	64.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	295351.7649
5573540	9/4/2011	8	1.07	60.35	3092	64.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	295351.7649
5573540	10/30/1991	8	1.07	60.35	3092	64.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	295351.7649
5573540	10/23/1998	8	1.07	60.35	3092	64.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	295351.7649
5573540	10/5/2012	8	1.07	60.35	3092	64.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	295351.7649
5573540	7/11/2007	7.9	1.07	60.25	3099	64.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294827.9308
5573540	9/1/2010	7.9	1.07	60.25	3099	64.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294827.9308
5573540	6/19/1995	7.8	1.07	60.14	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294304.0966
5573540	7/20/1994	7.8	1.07	60.14	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294304.0966
5573540	7/22/1999	7.8	1.07	60.14	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294304.0966
5573540	7/31/1999	7.8	1.07	60.14	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294304.0966
5573540	7/4/2001	7.8	1.07	60.14	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294304.0966
5573540	9/30/2004	7.8	1.07	60.14	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294304.0966
5573540	9/28/2005	7.8	1.07	60.14	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294304.0966
5573540	10/6/2004	7.8	1.07	60.14	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294304.0966
5573540	10/7/2004	7.8	1.07	60.14	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294304.0966
5573540	6/17/2012	7.7	1.07	60.03	3110	64.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293780.2625
5573540	9/3/2011	7.7	1.07	60.03	3110	64.9948%	Fecal_coliform	1807	cfu/100mL	200	283.2	2654304.672	293780.2625
5573540	10/5/2004	7.7	1.07	60.03	3110	64.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293780.2625
5573540	10/18/2007	7.7	1.07	60.03	3110	64.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293780.2625
5573540	7/18/1997	7.6	1.07	59.93	3114	65.0784%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293256.4284
5573540	7/25/1997	7.6	1.07	59.93	3114	65.0784%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293256.4284
5573540	8/27/1997	7.6	1.07	59.93	3114	65.0784%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293256.4284
5573540	10/13/2011	7.6	1.07	59.93	3114	65.0784%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293256.4284
5573540	7/11/2001	7.5	1.07	59.82	3118	65.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292732.5943
5573540	7/20/2005	7.5	1.07	59.82	3118	65.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292732.5943
5573540	8/27/2015	7.5	1.07	59.82	3118	65.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292732.5943
5573540	8/28/2015	7.5	1.07	59.82	3118	65.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292732.5943
5573540	9/22/2009	7.5	1.07	59.82	3118	65.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292732.5943
5573540	10/4/2004	7.5	1.07	59.82	3118	65.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292732.5943
5573540	5/19/1992	7.4	1.07	59.71	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292208.7602
5573540	7/8/2001	7.4	1.07	59.71	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292208.7602
5573540	8/2/1997	7.4	1.07	59.71	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292208.7602
5573540	10/6/1991	7.4	1.07	59.71	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292208.7602
5573540	10/18/1996	7.4	1.07	59.71	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292208.7602

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/26/1998	7.4	1.07	59.71	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292208.7602
5573540	10/7/2001	7.4	1.07	59.71	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292208.7602
5573540	10/1/2004	7.4	1.07	59.71	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292208.7602
5573540	10/11/2004	7.4	1.07	59.71	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292208.7602
5573540	8/17/2015	7.3	1.07	59.60	3133	65.4754%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	291684.9261
5573540	10/2/2004	7.3	1.07	59.60	3133	65.4754%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	291684.9261
5573540	10/3/2004	7.3	1.07	59.60	3133	65.4754%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	291684.9261
5573540	8/1/2000	7.2	1.07	59.50	3136	65.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	291161.092
5573540	10/14/1997	7.2	1.07	59.50	3136	65.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	291161.092
5573540	9/30/1999	7.1	1.07	59.39	3138	65.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290637.2579
5573540	9/6/2014	7.1	1.07	59.39	3138	65.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290637.2579
5573540	7/9/2002	7	1.07	59.28	3140	65.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290113.4238
5573540	7/17/2005	7	1.07	59.28	3140	65.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290113.4238
5573540	8/20/1997	7	1.07	59.28	3140	65.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290113.4238
5573540	10/23/2000	7	1.07	59.28	3140	65.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290113.4238
5573540	10/10/2004	7	1.07	59.28	3140	65.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290113.4238
5573540	7/18/2001	6.9	1.07	59.18	3145	65.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289589.5897
5573540	9/21/1991	6.9	1.07	59.18	3145	65.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289589.5897
5573540	9/29/2004	6.9	1.07	59.18	3145	65.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289589.5897
5573540	10/24/1998	6.9	1.07	59.18	3145	65.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289589.5897
5573540	10/2/2009	6.9	1.07	59.18	3145	65.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289589.5897
5573540	7/28/1997	6.8	1.07	59.07	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289065.7556
5573540	7/30/2007	6.8	1.07	59.07	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289065.7556
5573540	8/3/1997	6.8	1.07	59.07	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289065.7556
5573540	8/20/1999	6.8	1.07	59.07	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289065.7556
5573540	9/22/2004	6.8	1.07	59.07	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289065.7556
5573540	10/15/1997	6.8	1.07	59.07	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289065.7556
5573540	10/19/2000	6.8	1.07	59.07	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289065.7556
5573540	10/9/2001	6.8	1.07	59.07	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289065.7556
5573540	6/16/1991	6.7	1.07	58.96	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288541.9215
5573540	7/21/1994	6.7	1.07	58.96	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288541.9215
5573540	7/26/1997	6.7	1.07	58.96	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288541.9215
5573540	7/27/1997	6.7	1.07	58.96	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288541.9215
5573540	8/31/1997	6.7	1.07	58.96	3158	65.9979%	Fecal_coliform	1350	cfu/100mL	200	283.2	1947657.97	288541.9215
5573540	9/18/2001	6.7	1.07	58.96	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288541.9215
5573540	9/24/2005	6.7	1.07	58.96	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288541.9215
5573540	9/20/2009	6.7	1.07	58.96	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288541.9215
5573540	10/26/1991	6.7	1.07	58.96	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288541.9215
5573540	9/23/2004	6.6	1.07	58.85	3167	66.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288018.0874
5573540	10/26/1997	6.6	1.07	58.85	3167	66.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288018.0874
5573540	10/25/1998	6.6	1.07	58.85	3167	66.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288018.0874
5573540	10/18/2011	6.6	1.07	58.85	3167	66.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288018.0874
5573540	8/16/1990	6.5	1.07	58.75	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	287494.2533
5573540	8/17/2010	6.5	1.07	58.75	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	287494.2533
5573540	8/18/2010	6.5	1.07	58.75	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	287494.2533
5573540	9/5/1994	6.5	1.07	58.75	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	287494.2533

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/11/2015	6.5	1.07	58.75	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	287494.2533
5573540	10/31/1991	6.5	1.07	58.75	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	287494.2533
5573540	10/13/1997	6.5	1.07	58.75	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	287494.2533
5573540	10/27/1997	6.5	1.07	58.75	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	287494.2533
5573540	10/4/2000	6.5	1.07	58.75	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	287494.2533
5573540	7/11/1991	6.4	1.07	58.64	3180	66.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286970.4191
5573540	8/1/1997	6.4	1.07	58.64	3180	66.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286970.4191
5573540	9/20/2005	6.4	1.07	58.64	3180	66.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286970.4191
5573540	10/16/1997	6.4	1.07	58.64	3180	66.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286970.4191
5573540	10/8/2001	6.4	1.07	58.64	3180	66.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286970.4191
5573540	8/10/1993	6.3	1.07	58.53	3185	66.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286446.585
5573540	8/10/2000	6.3	1.07	58.53	3185	66.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286446.585
5573540	9/17/1997	6.3	1.07	58.53	3185	66.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286446.585
5573540	9/19/1997	6.3	1.07	58.53	3185	66.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286446.585
5573540	9/3/2001	6.3	1.07	58.53	3185	66.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286446.585
5573540	10/27/1991	6.3	1.07	58.53	3185	66.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286446.585
5573540	8/17/2004	6.2	1.07	58.43	3191	66.6876%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285922.7509
5573540	8/19/2004	6.2	1.07	58.43	3191	66.6876%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285922.7509
5573540	10/17/1997	6.2	1.07	58.43	3191	66.6876%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285922.7509
5573540	6/13/2007	6.1	1.07	58.32	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285398.9168
5573540	7/16/2001	6.1	1.07	58.32	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285398.9168
5573540	7/28/2001	6.1	1.07	58.32	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285398.9168
5573540	8/25/1995	6.1	1.07	58.32	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285398.9168
5573540	8/19/1997	6.1	1.07	58.32	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285398.9168
5573540	8/21/1999	6.1	1.07	58.32	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285398.9168
5573540	8/21/2004	6.1	1.07	58.32	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285398.9168
5573540	8/15/2009	6.1	1.07	58.32	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285398.9168
5573540	9/24/2004	6.1	1.07	58.32	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285398.9168
5573540	10/18/1997	6.1	1.07	58.32	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285398.9168
5573540	10/13/2000	6.1	1.07	58.32	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285398.9168
5573540	6/8/2012	6	1.07	58.21	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284875.0827
5573540	8/25/1999	6	1.07	58.21	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284875.0827
5573540	8/11/2004	6	1.07	58.21	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284875.0827
5573540	8/17/2008	6	1.07	58.21	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284875.0827
5573540	8/16/2009	6	1.07	58.21	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284875.0827
5573540	8/15/2014	6	1.07	58.21	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284875.0827
5573540	9/7/1990	6	1.07	58.21	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284875.0827
5573540	10/19/1997	6	1.07	58.21	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284875.0827
5573540	6/20/1991	5.9	1.07	58.11	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284351.2486
5573540	7/31/2007	5.9	1.07	58.11	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284351.2486
5573540	8/7/1999	5.9	1.07	58.11	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284351.2486
5573540	8/22/1999	5.9	1.07	58.11	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284351.2486
5573540	8/23/2004	5.9	1.07	58.11	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284351.2486
5573540	8/19/2010	5.9	1.07	58.11	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284351.2486
5573540	8/14/2014	5.9	1.07	58.11	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284351.2486
5573540	9/19/2002	5.9	1.07	58.11	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284351.2486

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/25/2004	5.9	1.07	58.11	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284351.2486
5573540	9/15/2009	5.9	1.07	58.11	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284351.2486
5573540	10/24/2012	5.9	1.07	58.11	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284351.2486
5573540	7/31/1997	5.8	1.07	58.00	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283827.4145
5573540	7/21/2007	5.8	1.07	58.00	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283827.4145
5573540	8/18/1997	5.8	1.07	58.00	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283827.4145
5573540	8/12/1998	5.8	1.07	58.00	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283827.4145
5573540	8/17/2009	5.8	1.07	58.00	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283827.4145
5573540	9/20/1997	5.8	1.07	58.00	3224	67.3772%	Fecal_coliform	185	cfu/100mL	200	283.2	262540.3584	283827.4145
5573540	9/28/2004	5.8	1.07	58.00	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283827.4145
5573540	10/4/1990	5.8	1.07	58.00	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283827.4145
5573540	10/13/2012	5.8	1.07	58.00	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283827.4145
5573540	6/16/2007	5.7	1.07	57.89	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283303.5804
5573540	7/29/1997	5.7	1.07	57.89	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283303.5804
5573540	7/23/1999	5.7	1.07	57.89	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283303.5804
5573540	8/10/1997	5.7	1.07	57.89	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283303.5804
5573540	8/1/1999	5.7	1.07	57.89	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283303.5804
5573540	8/16/2004	5.7	1.07	57.89	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283303.5804
5573540	8/18/2008	5.7	1.07	57.89	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283303.5804
5573540	8/16/2014	5.7	1.07	57.89	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283303.5804
5573540	9/26/2004	5.7	1.07	57.89	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283303.5804
5573540	9/27/2004	5.7	1.07	57.89	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283303.5804
5573540	9/18/2011	5.7	1.07	57.89	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283303.5804
5573540	10/20/1997	5.7	1.07	57.89	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283303.5804
5573540	10/4/2002	5.7	1.07	57.89	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283303.5804
5573540	6/12/1991	5.6	1.07	57.78	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282779.7463
5573540	7/12/2001	5.6	1.07	57.78	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282779.7463
5573540	9/25/1992	5.6	1.07	57.78	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282779.7463
5573540	9/29/2001	5.6	1.07	57.78	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282779.7463
5573540	9/28/2011	5.6	1.07	57.78	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282779.7463
5573540	10/3/1990	5.6	1.07	57.78	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282779.7463
5573540	10/21/1997	5.6	1.07	57.78	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282779.7463
5573540	10/1/2009	5.6	1.07	57.78	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282779.7463
5573540	10/2/2015	5.6	1.07	57.78	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282779.7463
5573540	7/29/1998	5.5	1.07	57.68	3255	68.0251%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282255.9122
5573540	8/4/2000	5.5	1.07	57.68	3255	68.0251%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282255.9122
5573540	9/27/1996	5.5	1.07	57.68	3255	68.0251%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282255.9122
5573540	9/4/2001	5.5	1.07	57.68	3255	68.0251%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282255.9122
5573540	9/17/2009	5.5	1.07	57.68	3255	68.0251%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282255.9122
5573540	9/21/2009	5.5	1.07	57.68	3255	68.0251%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282255.9122
5573540	10/26/2012	5.5	1.07	57.68	3255	68.0251%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282255.9122
5573540	7/30/1997	5.4	1.07	57.57	3262	68.1714%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281732.0781
5573540	7/22/2006	5.4	1.07	57.57	3262	68.1714%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281732.0781
5573540	8/16/2001	5.4	1.07	57.57	3262	68.1714%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281732.0781
5573540	8/13/2005	5.4	1.07	57.57	3262	68.1714%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281732.0781
5573540	9/12/2000	5.4	1.07	57.57	3262	68.1714%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281732.0781

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/19/2011	5.4	1.07	57.57	3262	68.1714%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281732.0781
5573540	10/26/2010	5.4	1.07	57.57	3262	68.1714%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281732.0781
5573540	9/22/2012	5.3	1.07	57.46	3269	68.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281208.244
5573540	10/22/1997	5.3	1.07	57.46	3269	68.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281208.244
5573540	10/23/1997	5.3	1.07	57.46	3269	68.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281208.244
5573540	6/14/2007	5.2	1.07	57.36	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280684.4099
5573540	6/9/2012	5.2	1.07	57.36	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280684.4099
5573540	7/21/2005	5.2	1.07	57.36	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280684.4099
5573540	8/31/1991	5.2	1.07	57.36	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280684.4099
5573540	8/3/2001	5.2	1.07	57.36	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280684.4099
5573540	8/25/2001	5.2	1.07	57.36	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280684.4099
5573540	10/19/1996	5.2	1.07	57.36	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280684.4099
5573540	10/24/1997	5.2	1.07	57.36	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280684.4099
5573540	10/3/1999	5.2	1.07	57.36	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280684.4099
5573540	10/10/1999	5.2	1.07	57.36	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280684.4099
5573540	10/15/2012	5.2	1.07	57.36	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280684.4099
5573540	9/26/2000	5.1	1.07	57.25	3283	68.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280160.5758
5573540	10/29/1991	5.1	1.07	57.25	3283	68.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280160.5758
5573540	10/28/1997	5.1	1.07	57.25	3283	68.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280160.5758
5573540	10/10/2006	5.1	1.07	57.25	3283	68.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280160.5758
5573540	10/3/2015	5.1	1.07	57.25	3283	68.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280160.5758
5573540	8/16/2002	5	1.07	57.14	3288	68.7147%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279636.7416
5573540	10/25/1997	5	1.07	57.14	3288	68.7147%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279636.7416
5573540	10/7/2009	5	1.07	57.14	3288	68.7147%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279636.7416
5573540	6/15/2007	4.9	1.07	57.04	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279112.9075
5573540	7/2/1994	4.9	1.07	57.04	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279112.9075
5573540	7/24/1999	4.9	1.07	57.04	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279112.9075
5573540	7/17/2001	4.9	1.07	57.04	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279112.9075
5573540	8/21/1998	4.9	1.07	57.04	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279112.9075
5573540	8/12/2004	4.9	1.07	57.04	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279112.9075
5573540	8/15/2004	4.9	1.07	57.04	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279112.9075
5573540	8/18/2009	4.9	1.07	57.04	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279112.9075
5573540	9/10/2000	4.9	1.07	57.04	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279112.9075
5573540	10/28/1991	4.9	1.07	57.04	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279112.9075
5573540	10/10/1997	4.9	1.07	57.04	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279112.9075
5573540	10/11/1997	4.9	1.07	57.04	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279112.9075
5573540	10/12/1997	4.9	1.07	57.04	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279112.9075
5573540	10/16/2004	4.9	1.07	57.04	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279112.9075
5573540	8/22/2004	4.8	1.07	56.93	3305	69.0700%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278589.0734
5573540	8/1/2007	4.8	1.07	56.93	3305	69.0700%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278589.0734
5573540	9/26/1992	4.8	1.07	56.93	3305	69.0700%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278589.0734
5573540	9/18/2009	4.8	1.07	56.93	3305	69.0700%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278589.0734
5573540	7/26/1999	4.7	1.07	56.82	3309	69.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278065.2393
5573540	7/18/2007	4.7	1.07	56.82	3309	69.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278065.2393
5573540	8/2/1999	4.7	1.07	56.82	3309	69.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278065.2393
5573540	9/7/1997	4.7	1.07	56.82	3309	69.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278065.2393

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/19/2009	4.7	1.07	56.82	3309	69.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278065.2393
5573540	10/3/2007	4.7	1.07	56.82	3309	69.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278065.2393
5573540	10/12/2011	4.7	1.07	56.82	3309	69.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278065.2393
5573540	5/27/2012	4.6	1.07	56.71	3316	69.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277541.4052
5573540	7/19/2001	4.6	1.07	56.71	3316	69.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277541.4052
5573540	8/4/1997	4.6	1.07	56.71	3316	69.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277541.4052
5573540	9/23/2009	4.6	1.07	56.71	3316	69.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277541.4052
5573540	10/17/1996	4.6	1.07	56.71	3316	69.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277541.4052
5573540	10/1/2006	4.6	1.07	56.71	3316	69.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277541.4052
5573540	7/25/1999	4.5	1.07	56.61	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277017.5711
5573540	7/11/2002	4.5	1.07	56.61	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277017.5711
5573540	7/20/2007	4.5	1.07	56.61	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277017.5711
5573540	8/11/1997	4.5	1.07	56.61	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277017.5711
5573540	8/13/2004	4.5	1.07	56.61	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277017.5711
5573540	8/14/2004	4.5	1.07	56.61	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277017.5711
5573540	8/29/2015	4.5	1.07	56.61	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277017.5711
5573540	9/3/1992	4.5	1.07	56.61	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277017.5711
5573540	9/14/1992	4.5	1.07	56.61	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277017.5711
5573540	9/4/2002	4.5	1.07	56.61	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277017.5711
5573540	9/10/2011	4.5	1.07	56.61	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277017.5711
5573540	9/14/2011	4.5	1.07	56.61	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277017.5711
5573540	10/9/1997	4.5	1.07	56.61	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277017.5711
5573540	8/11/2000	4.4	1.07	56.50	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276493.737
5573540	8/23/2000	4.4	1.07	56.50	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276493.737
5573540	8/4/2001	4.4	1.07	56.50	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276493.737
5573540	8/19/2008	4.4	1.07	56.50	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276493.737
5573540	9/5/2001	4.4	1.07	56.50	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276493.737
5573540	10/29/1997	4.4	1.07	56.50	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276493.737
5573540	10/17/2004	4.4	1.07	56.50	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276493.737
5573540	7/16/1991	4.3	1.07	56.39	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275969.9029
5573540	7/20/2001	4.3	1.07	56.39	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275969.9029
5573540	7/26/2001	4.3	1.07	56.39	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275969.9029
5573540	7/12/2007	4.3	1.07	56.39	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275969.9029
5573540	8/8/1999	4.3	1.07	56.39	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275969.9029
5573540	8/17/2012	4.3	1.07	56.39	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275969.9029
5573540	9/25/2009	4.3	1.07	56.39	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275969.9029
5573540	9/7/2014	4.3	1.07	56.39	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275969.9029
5573540	10/24/1996	4.3	1.07	56.39	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275969.9029
5573540	10/30/2002	4.3	1.07	56.39	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275969.9029
5573540	10/31/2002	4.3	1.07	56.39	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275969.9029
5573540	6/20/1995	4.2	1.07	56.29	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275446.0688
5573540	6/13/2012	4.2	1.07	56.29	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275446.0688
5573540	7/17/2011	4.2	1.07	56.29	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275446.0688
5573540	7/24/2011	4.2	1.07	56.29	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275446.0688
5573540	8/15/1997	4.2	1.07	56.29	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275446.0688
5573540	8/3/1999	4.2	1.07	56.29	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275446.0688

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/27/2003	4.2	1.07	56.29	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275446.0688
5573540	8/15/2011	4.2	1.07	56.29	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275446.0688
5573540	8/31/2011	4.2	1.07	56.29	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275446.0688
5573540	5/28/2012	4.1	1.07	56.18	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274922.2347
5573540	7/25/2001	4.1	1.07	56.18	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274922.2347
5573540	7/22/2005	4.1	1.07	56.18	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274922.2347
5573540	7/25/2006	4.1	1.07	56.18	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274922.2347
5573540	7/19/2007	4.1	1.07	56.18	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274922.2347
5573540	8/14/1998	4.1	1.07	56.18	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274922.2347
5573540	8/27/1999	4.1	1.07	56.18	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274922.2347
5573540	8/1/2001	4.1	1.07	56.18	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274922.2347
5573540	8/26/2003	4.1	1.07	56.18	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274922.2347
5573540	8/16/2011	4.1	1.07	56.18	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274922.2347
5573540	9/8/1990	4.1	1.07	56.18	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274922.2347
5573540	9/4/1991	4.1	1.07	56.18	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274922.2347
5573540	9/26/2009	4.1	1.07	56.18	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274922.2347
5573540	10/5/1990	4.1	1.07	56.18	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274922.2347
5573540	10/20/1996	4.1	1.07	56.18	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274922.2347
5573540	10/4/1999	4.1	1.07	56.18	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274922.2347
5573540	10/22/2005	4.1	1.07	56.18	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274922.2347
5573540	10/7/2006	4.1	1.07	56.18	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274922.2347
5573540	7/21/2001	4	1.07	56.07	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274398.4006
5573540	7/22/2001	4	1.07	56.07	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274398.4006
5573540	7/23/2001	4	1.07	56.07	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274398.4006
5573540	7/30/2001	4	1.07	56.07	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274398.4006
5573540	8/26/1999	4	1.07	56.07	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274398.4006
5573540	8/26/2000	4	1.07	56.07	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274398.4006
5573540	8/24/2010	4	1.07	56.07	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274398.4006
5573540	9/24/2009	4	1.07	56.07	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274398.4006
5573540	10/19/2011	4	1.07	56.07	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274398.4006
5573540	5/5/2000	3.9	1.07	55.96	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273874.5665
5573540	5/26/2012	3.9	1.07	55.96	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273874.5665
5573540	7/31/2001	3.9	1.07	55.96	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273874.5665
5573540	7/13/2007	3.9	1.07	55.96	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273874.5665
5573540	8/17/1995	3.9	1.07	55.96	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273874.5665
5573540	8/5/1997	3.9	1.07	55.96	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273874.5665
5573540	8/6/1997	3.9	1.07	55.96	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273874.5665
5573540	8/12/1997	3.9	1.07	55.96	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273874.5665
5573540	8/22/2000	3.9	1.07	55.96	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273874.5665
5573540	8/13/2001	3.9	1.07	55.96	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273874.5665
5573540	8/20/2001	3.9	1.07	55.96	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273874.5665
5573540	8/13/2003	3.9	1.07	55.96	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273874.5665
5573540	8/20/2003	3.9	1.07	55.96	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273874.5665
5573540	8/21/2003	3.9	1.07	55.96	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273874.5665
5573540	8/25/2003	3.9	1.07	55.96	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273874.5665
5573540	9/21/1997	3.9	1.07	55.96	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273874.5665

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/11/2010	3.9	1.07	55.96	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273874.5665
5573540	10/6/2006	3.9	1.07	55.96	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273874.5665
5573540	10/17/2011	3.9	1.07	55.96	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273874.5665
5573540	10/27/2015	3.9	1.07	55.96	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273874.5665
5573540	6/30/1994	3.8	1.07	55.86	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273350.7324
5573540	7/27/2005	3.8	1.07	55.86	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273350.7324
5573540	7/18/2011	3.8	1.07	55.86	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273350.7324
5573540	8/17/1996	3.8	1.07	55.86	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273350.7324
5573540	8/5/2001	3.8	1.07	55.86	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273350.7324
5573540	8/14/2001	3.8	1.07	55.86	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273350.7324
5573540	8/16/2003	3.8	1.07	55.86	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273350.7324
5573540	8/22/2003	3.8	1.07	55.86	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273350.7324
5573540	9/17/2002	3.8	1.07	55.86	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273350.7324
5573540	9/27/2009	3.8	1.07	55.86	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273350.7324
5573540	9/18/2012	3.8	1.07	55.86	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273350.7324
5573540	10/3/1991	3.8	1.07	55.86	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273350.7324
5573540	10/7/1991	3.8	1.07	55.86	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273350.7324
5573540	10/25/1991	3.8	1.07	55.86	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273350.7324
5573540	10/30/1997	3.8	1.07	55.86	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273350.7324
5573540	10/8/2005	3.8	1.07	55.86	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273350.7324
5573540	10/3/2009	3.8	1.07	55.86	3409	71.2435%	Fecal_coliform	640	cfu/100mL	200	283.2	874722.3435	273350.7324
5573540	10/20/2011	3.8	1.07	55.86	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273350.7324
5573540	5/25/2012	3.7	1.07	55.75	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272826.8983
5573540	7/12/1995	3.7	1.07	55.75	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272826.8983
5573540	7/24/2001	3.7	1.07	55.75	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272826.8983
5573540	7/24/2006	3.7	1.07	55.75	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272826.8983
5573540	8/16/1997	3.7	1.07	55.75	3427	71.6196%	Fecal_coliform	160	cfu/100mL	200	283.2	218261.5186	272826.8983
5573540	8/4/1999	3.7	1.07	55.75	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272826.8983
5573540	8/7/2001	3.7	1.07	55.75	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272826.8983
5573540	8/9/2001	3.7	1.07	55.75	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272826.8983
5573540	8/12/2001	3.7	1.07	55.75	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272826.8983
5573540	8/15/2001	3.7	1.07	55.75	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272826.8983
5573540	8/26/2001	3.7	1.07	55.75	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272826.8983
5573540	8/14/2003	3.7	1.07	55.75	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272826.8983
5573540	8/15/2003	3.7	1.07	55.75	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272826.8983
5573540	8/19/2003	3.7	1.07	55.75	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272826.8983
5573540	8/24/2003	3.7	1.07	55.75	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272826.8983
5573540	8/28/2003	3.7	1.07	55.75	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272826.8983
5573540	8/30/2003	3.7	1.07	55.75	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272826.8983
5573540	9/8/2014	3.7	1.07	55.75	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272826.8983
5573540	10/31/1997	3.7	1.07	55.75	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272826.8983
5573540	10/2/2010	3.7	1.07	55.75	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272826.8983
5573540	7/27/2001	3.6	1.07	55.64	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272303.0641
5573540	8/8/1997	3.6	1.07	55.64	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272303.0641
5573540	8/6/2001	3.6	1.07	55.64	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272303.0641
5573540	8/8/2001	3.6	1.07	55.64	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272303.0641

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/10/2001	3.6	1.07	55.64	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272303.0641
5573540	8/11/2001	3.6	1.07	55.64	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272303.0641
5573540	8/18/2002	3.6	1.07	55.64	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272303.0641
5573540	8/14/2005	3.6	1.07	55.64	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272303.0641
5573540	8/18/2011	3.6	1.07	55.64	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272303.0641
5573540	9/19/1990	3.6	1.07	55.64	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272303.0641
5573540	9/4/1992	3.6	1.07	55.64	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272303.0641
5573540	9/16/2009	3.6	1.07	55.64	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272303.0641
5573540	10/8/1997	3.6	1.07	55.64	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272303.0641
5573540	10/8/2006	3.6	1.07	55.64	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272303.0641
5573540	10/4/2009	3.6	1.07	55.64	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272303.0641
5573540	6/25/1991	3.5	1.07	55.54	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271779.23
5573540	8/7/1997	3.5	1.07	55.54	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271779.23
5573540	8/12/2000	3.5	1.07	55.54	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271779.23
5573540	8/23/2003	3.5	1.07	55.54	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271779.23
5573540	8/16/2015	3.5	1.07	55.54	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271779.23
5573540	9/1/1997	3.5	1.07	55.54	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271779.23
5573540	9/14/2000	3.5	1.07	55.54	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271779.23
5573540	9/8/2001	3.5	1.07	55.54	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271779.23
5573540	9/21/2001	3.5	1.07	55.54	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271779.23
5573540	9/29/2005	3.5	1.07	55.54	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271779.23
5573540	10/6/1990	3.5	1.07	55.54	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271779.23
5573540	10/24/1991	3.5	1.07	55.54	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271779.23
5573540	10/21/1996	3.5	1.07	55.54	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271779.23
5573540	10/28/2015	3.5	1.07	55.54	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271779.23
5573540	7/25/2011	3.4	1.07	55.43	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271255.3959
5573540	7/27/2011	3.4	1.07	55.43	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271255.3959
5573540	8/30/1998	3.4	1.07	55.43	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271255.3959
5573540	8/2/2007	3.4	1.07	55.43	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271255.3959
5573540	8/31/2010	3.4	1.07	55.43	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271255.3959
5573540	8/5/2013	3.4	1.07	55.43	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271255.3959
5573540	9/23/1997	3.4	1.07	55.43	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271255.3959
5573540	9/24/1997	3.4	1.07	55.43	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271255.3959
5573540	9/10/2001	3.4	1.07	55.43	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271255.3959
5573540	9/15/2011	3.4	1.07	55.43	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271255.3959
5573540	10/7/1997	3.4	1.07	55.43	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271255.3959
5573540	10/1/1999	3.4	1.07	55.43	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271255.3959
5573540	10/5/2009	3.4	1.07	55.43	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271255.3959
5573540	10/4/2013	3.4	1.07	55.43	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271255.3959
5573540	6/12/2012	3.3	1.07	55.32	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270731.5618
5573540	8/13/1997	3.3	1.07	55.32	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270731.5618
5573540	8/5/1999	3.3	1.07	55.32	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270731.5618
5573540	8/19/2000	3.3	1.07	55.32	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270731.5618
5573540	8/21/2001	3.3	1.07	55.32	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270731.5618
5573540	8/22/2001	3.3	1.07	55.32	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270731.5618
5573540	8/4/2007	3.3	1.07	55.32	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270731.5618

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/15/2015	3.3	1.07	55.32	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270731.5618
5573540	8/30/2015	3.3	1.07	55.32	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270731.5618
5573540	9/5/1992	3.3	1.07	55.32	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270731.5618
5573540	9/8/1992	3.3	1.07	55.32	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270731.5618
5573540	9/19/2001	3.3	1.07	55.32	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270731.5618
5573540	9/10/2013	3.3	1.07	55.32	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270731.5618
5573540	10/15/1992	3.3	1.07	55.32	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270731.5618
5573540	10/8/1998	3.3	1.07	55.32	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270731.5618
5573540	10/17/1998	3.3	1.07	55.32	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270731.5618
5573540	10/20/2002	3.3	1.07	55.32	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270731.5618
5573540	10/23/2007	3.3	1.07	55.32	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270731.5618
5573540	7/23/2005	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	7/14/2007	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	7/19/2011	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	8/6/1999	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	8/9/1999	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	8/10/1999	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	8/28/1999	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	8/13/2000	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	8/24/2000	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	8/17/2001	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	8/27/2001	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	8/29/2001	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	8/22/2005	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	8/20/2008	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	8/25/2010	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	9/24/1992	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	9/25/1999	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	9/26/1999	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	9/28/2009	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	9/12/2011	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	9/8/2013	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	9/8/2015	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	10/7/1992	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	10/8/1992	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	10/26/2002	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	10/9/2006	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	10/25/2010	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	10/30/2013	3.2	1.07	55.22	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270207.7277
5573540	7/15/2012	3.1	1.07	55.11	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269683.8936
5573540	8/14/1997	3.1	1.07	55.11	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269683.8936
5573540	8/29/1999	3.1	1.07	55.11	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269683.8936
5573540	8/17/2003	3.1	1.07	55.11	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269683.8936
5573540	8/18/2003	3.1	1.07	55.11	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269683.8936
5573540	8/26/2010	3.1	1.07	55.11	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269683.8936
5573540	8/27/2010	3.1	1.07	55.11	3536	73.8976%	Fecal_coliform	1233	cfu/100mL	200	283.2	1662601.204	269683.8936

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/30/2010	3.1	1.07	55.11	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269683.8936
5573540	8/14/2011	3.1	1.07	55.11	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269683.8936
5573540	9/6/1992	3.1	1.07	55.11	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269683.8936
5573540	9/18/1997	3.1	1.07	55.11	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269683.8936
5573540	9/22/1997	3.1	1.07	55.11	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269683.8936
5573540	9/12/1999	3.1	1.07	55.11	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269683.8936
5573540	9/27/1999	3.1	1.07	55.11	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269683.8936
5573540	9/3/2000	3.1	1.07	55.11	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269683.8936
5573540	9/9/2013	3.1	1.07	55.11	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269683.8936
5573540	10/19/1991	3.1	1.07	55.11	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269683.8936
5573540	10/1/1992	3.1	1.07	55.11	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269683.8936
5573540	10/13/2007	3.1	1.07	55.11	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269683.8936
5573540	6/14/2012	3	1.07	55.00	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269160.0595
5573540	7/23/2006	3	1.07	55.00	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269160.0595
5573540	8/11/1999	3	1.07	55.00	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269160.0595
5573540	8/5/2007	3	1.07	55.00	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269160.0595
5573540	8/20/2007	3	1.07	55.00	3555	74.2947%	Fecal_coliform	140	cfu/100mL	200	283.2	188412.0416	269160.0595
5573540	8/30/2011	3	1.07	55.00	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269160.0595
5573540	8/31/2015	3	1.07	55.00	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269160.0595
5573540	9/27/2000	3	1.07	55.00	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269160.0595
5573540	9/29/2009	3	1.07	55.00	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269160.0595
5573540	9/30/2009	3	1.07	55.00	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269160.0595
5573540	9/5/2012	3	1.07	55.00	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269160.0595
5573540	9/26/2012	3	1.07	55.00	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269160.0595
5573540	10/8/1991	3	1.07	55.00	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269160.0595
5573540	10/20/1991	3	1.07	55.00	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269160.0595
5573540	10/23/1991	3	1.07	55.00	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269160.0595
5573540	10/30/1996	3	1.07	55.00	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269160.0595
5573540	10/6/1997	3	1.07	55.00	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269160.0595
5573540	10/1/1998	3	1.07	55.00	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269160.0595
5573540	10/12/2006	3	1.07	55.00	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269160.0595
5573540	10/24/2010	3	1.07	55.00	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269160.0595
5573540	6/16/2012	2.9	1.07	54.89	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268636.2254
5573540	8/14/2000	2.9	1.07	54.89	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268636.2254
5573540	8/15/2000	2.9	1.07	54.89	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268636.2254
5573540	8/16/2000	2.9	1.07	54.89	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268636.2254
5573540	8/27/2000	2.9	1.07	54.89	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268636.2254
5573540	8/29/2000	2.9	1.07	54.89	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268636.2254
5573540	8/28/2010	2.9	1.07	54.89	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268636.2254
5573540	8/17/2011	2.9	1.07	54.89	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268636.2254
5573540	8/29/2011	2.9	1.07	54.89	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268636.2254
5573540	8/12/2015	2.9	1.07	54.89	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268636.2254
5573540	9/9/1990	2.9	1.07	54.89	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268636.2254
5573540	9/21/1990	2.9	1.07	54.89	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268636.2254
5573540	9/7/1992	2.9	1.07	54.89	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268636.2254
5573540	9/23/1992	2.9	1.07	54.89	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268636.2254

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/1/2000	2.9	1.07	54.89	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268636.2254
5573540	9/2/2000	2.9	1.07	54.89	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268636.2254
5573540	9/7/2007	2.9	1.07	54.89	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268636.2254
5573540	9/11/2011	2.9	1.07	54.89	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268636.2254
5573540	10/5/1999	2.9	1.07	54.89	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268636.2254
5573540	10/7/1999	2.9	1.07	54.89	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268636.2254
5573540	10/25/2012	2.9	1.07	54.89	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268636.2254
5573540	7/24/2005	2.8	1.07	54.79	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268112.3913
5573540	7/15/2007	2.8	1.07	54.79	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268112.3913
5573540	8/25/2000	2.8	1.07	54.79	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268112.3913
5573540	8/28/2000	2.8	1.07	54.79	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268112.3913
5573540	8/31/2000	2.8	1.07	54.79	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268112.3913
5573540	8/11/2005	2.8	1.07	54.79	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268112.3913
5573540	8/23/2008	2.8	1.07	54.79	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268112.3913
5573540	8/6/2013	2.8	1.07	54.79	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268112.3913
5573540	9/22/1990	2.8	1.07	54.79	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268112.3913
5573540	9/24/1999	2.8	1.07	54.79	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268112.3913
5573540	9/4/2000	2.8	1.07	54.79	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268112.3913
5573540	9/26/2010	2.8	1.07	54.79	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268112.3913
5573540	9/1/2015	2.8	1.07	54.79	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268112.3913
5573540	10/21/1991	2.8	1.07	54.79	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268112.3913
5573540	10/9/1992	2.8	1.07	54.79	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268112.3913
5573540	10/5/1997	2.8	1.07	54.79	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268112.3913
5573540	10/31/1999	2.8	1.07	54.79	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268112.3913
5573540	5/3/2003	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	7/16/2007	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	7/20/2011	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	8/30/1999	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	8/20/2000	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	8/21/2000	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	8/30/2000	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	8/29/2010	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	8/7/2013	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	8/12/2013	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	9/25/1997	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	9/2/1999	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	9/3/1999	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	9/13/1999	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	9/22/1999	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	9/23/1999	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	9/5/2000	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	9/6/2000	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	9/7/2000	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	9/11/2001	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	9/27/2005	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	10/22/1991	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/10/1992	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	10/2/1995	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	10/14/1996	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	10/15/1996	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	10/31/1996	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	10/19/2010	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	10/20/2010	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	10/23/2010	2.7	1.07	54.68	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267588.5572
5573540	7/21/2011	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	7/31/2011	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	8/31/1999	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	8/9/2005	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	8/10/2005	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	8/3/2007	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	8/16/2007	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	8/28/2011	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	8/9/2013	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	8/11/2013	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	8/16/2013	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	8/17/2013	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	9/20/1992	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	9/4/1999	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	9/11/1999	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	9/18/1999	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	9/19/1999	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	9/20/1999	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	9/12/2013	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	9/20/2013	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	10/11/1992	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	10/12/1992	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	10/13/1992	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	10/14/1992	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	10/31/1994	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	10/16/1996	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	10/4/1997	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	10/2/1998	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	10/6/1999	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	10/13/2006	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	10/26/2007	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	10/18/2010	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	10/21/2010	2.6	1.07	54.57	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267064.7231
5573540	6/15/2012	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	8/3/2005	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	8/4/2005	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	8/8/2005	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	8/21/2008	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/8/2013	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	8/13/2013	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	8/18/2013	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	8/19/2013	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	8/20/2013	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	8/23/2013	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	8/13/2015	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	9/14/1990	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	9/20/1990	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	9/1/1991	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	9/15/1992	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	9/23/1994	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	9/1/1999	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	9/5/1999	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	9/17/1999	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	9/21/1999	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	9/8/2000	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	9/7/2005	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	9/7/2013	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	10/12/1996	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	10/13/1996	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	10/4/1998	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	10/2/1999	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	10/23/2005	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	10/5/2006	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	10/12/2010	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	10/27/2010	2.5	1.07	54.47	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266540.889
5573540	5/15/2001	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	7/25/2005	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	7/26/2011	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	7/28/2011	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	7/8/2012	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	8/11/1991	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	8/1/1996	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	8/22/2002	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	8/1/2011	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	8/13/2011	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	8/27/2011	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	8/10/2013	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	8/14/2013	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	8/15/2013	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	8/21/2013	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	8/22/2013	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	8/24/2013	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	9/15/1990	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	9/6/1999	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/7/1999	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	9/8/1999	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	9/14/1999	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	9/16/1999	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	9/9/2000	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	9/22/2000	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	9/28/2000	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	9/12/2001	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	9/5/2011	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	9/13/2011	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	9/29/2011	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	9/13/2013	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	9/14/2013	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	10/9/1991	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	10/25/1996	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	10/28/2002	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	10/14/2006	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	10/13/2010	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	10/22/2010	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	10/31/2015	2.4	1.07	54.36	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266017.0549
5573540	5/1/2001	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	7/17/1991	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	7/30/2011	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	8/28/2001	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	8/2/2005	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	8/26/2011	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	9/7/1994	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	9/9/1999	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	9/10/1999	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	9/15/1999	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	9/14/2001	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	9/20/2001	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	9/16/2005	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	9/11/2013	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	9/21/2013	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	10/18/1991	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	10/28/1992	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	10/29/1992	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	10/10/1996	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	10/11/1996	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	10/3/1997	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	10/3/1998	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	10/30/1999	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	10/3/2000	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	10/15/2006	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	10/17/2007	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/11/2010	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	10/4/2015	2.3	1.07	54.25	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265493.2207
5573540	7/22/2011	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	7/29/2011	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	8/10/1990	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	8/13/1994	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	8/24/1998	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	8/5/2005	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	8/7/2005	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	8/15/2005	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	8/6/2007	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	8/25/2013	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	9/13/1990	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	9/16/1992	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	9/28/1996	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	9/17/2001	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	9/5/2002	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	9/20/2011	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	9/5/2015	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	9/19/2015	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	10/9/1994	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	10/1/1995	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	10/8/1996	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	10/9/1996	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	10/29/1996	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	10/2/2000	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	10/2/2006	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	10/1/2007	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	10/18/2015	2.2	1.07	54.15	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264969.3866
5573540	6/26/1991	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	8/26/1995	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	8/22/1998	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	8/1/2005	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	8/6/2005	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	8/24/2008	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	8/4/2011	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	8/5/2011	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	8/10/2011	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	8/26/2013	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	8/27/2013	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	8/28/2013	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	9/10/1990	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	9/20/2000	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	9/29/2000	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	9/30/2000	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	9/15/2001	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/16/2001	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	9/22/2001	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	9/26/2007	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	10/15/1991	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	10/16/1991	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	10/17/1991	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	10/27/1992	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	10/26/1996	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	10/27/1996	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	10/1/2000	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	10/29/2005	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	10/15/2010	2.1	1.07	54.04	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264445.5525
5573540	7/1/1994	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	7/22/1994	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	7/22/2002	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	8/18/2005	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	8/26/2008	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	8/19/2011	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	8/29/2013	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	8/30/2013	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	9/12/1990	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	9/18/1990	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	9/17/1992	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	9/27/1992	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	9/30/1998	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	9/11/2000	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	9/23/2000	2	1.07	53.93	3831	80.0627%	Fecal_coliform	150	cfu/100mL	200	283.2	197941.2888	263921.7184
5573540	9/13/2001	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	9/19/2010	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	9/23/2010	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	9/1/2011	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	9/2/2015	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	10/10/1991	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	10/12/1991	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	10/28/1996	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	10/2/1997	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	10/9/1998	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	10/17/1999	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	10/29/1999	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	10/10/2000	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	10/3/2001	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	10/27/2002	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	10/6/2012	2	1.07	53.93	3831	80.0627%	Fecal_coliform	11800	cfu/100mL	200	283.2	15571381.39	263921.7184
5573540	10/19/2012	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	10/1/2013	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	10/5/2015	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/6/2015	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	10/26/2015	2	1.07	53.93	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263921.7184
5573540	7/13/1995	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	7/23/2011	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	8/2/1994	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	8/20/2005	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	8/30/2005	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	8/28/2008	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	8/9/2011	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	8/12/2011	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	8/31/2013	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	9/11/1990	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	9/16/1990	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	9/23/1990	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	9/8/1996	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	9/26/1997	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	9/9/2007	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	9/25/2007	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	9/17/2011	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	9/1/2013	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	9/2/2013	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	10/11/1991	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	10/14/1991	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	10/7/1996	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	10/16/1998	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	10/14/2002	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	10/15/2002	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	10/2/2007	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	10/22/2007	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	10/14/2010	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	10/16/2010	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	160	cfu/100mL	200	283.2	210718.3075	263397.8843
5573540	10/17/2010	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	10/28/2010	1.9	1.07	53.82	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263397.8843
5573540	7/2/1991	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	7/29/2005	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	8/18/1995	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	8/17/2007	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	8/19/2007	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	8/27/2008	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	8/2/2011	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	8/6/2011	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	8/7/2011	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	8/8/2011	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	8/11/2011	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	9/18/1992	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	9/19/1992	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/13/2000	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	9/21/2000	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	9/30/2005	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	9/28/2007	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	9/25/2010	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	9/3/2013	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	9/16/2013	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	9/3/2015	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	10/13/1991	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	10/11/1999	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	10/18/1999	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	10/22/1999	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	10/28/1999	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	10/4/2001	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	10/16/2002	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	10/17/2002	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	10/19/2007	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	10/29/2015	1.8	1.07	53.72	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262874.0502
5573540	6/18/2012	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	7/28/2005	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	7/30/2005	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	7/7/2012	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	8/14/2002	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	8/17/2005	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	8/18/2007	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	8/21/2007	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	8/25/2008	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	8/6/2012	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	9/15/2000	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	9/16/2000	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	9/17/2000	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	9/19/2000	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	9/23/2001	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	9/6/2002	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	9/18/2002	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	9/6/2005	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	9/6/2007	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	9/11/2007	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	9/27/2007	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	9/29/2007	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	9/30/2007	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	9/2/2011	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	9/16/2011	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	9/4/2013	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	9/5/2013	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	9/23/2013	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/1/1997	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	10/10/1998	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	10/19/1999	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	10/23/1999	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	10/27/2007	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	10/3/2010	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	10/29/2010	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	10/31/2010	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	10/24/2015	1.7	1.07	53.61	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262350.2161
5573540	6/19/2012	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	7/3/1991	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	7/17/2002	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	8/27/1994	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	8/13/2002	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	8/16/2005	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	8/21/2005	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	8/29/2005	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	8/29/2008	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	8/3/2011	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	9/24/1994	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	9/18/2000	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	9/8/2005	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	9/27/2010	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	9/6/2011	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	9/6/2013	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	9/15/2013	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	9/17/2013	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	9/19/2013	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	9/24/2013	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	9/25/2013	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	9/26/2013	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	9/9/2015	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	9/12/2015	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	10/1/1990	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	10/16/1999	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	10/20/1999	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	10/21/1999	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	10/24/1999	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	10/21/2000	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	10/12/2002	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	10/14/2007	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	10/10/2010	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	10/14/2011	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	10/2/2013	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	10/25/2015	1.6	1.07	53.50	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261826.382
5573540	5/2/2001	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/6/2001	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	6/27/1991	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	6/20/2012	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	7/7/1991	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	7/18/1991	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	7/31/2005	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	8/23/1998	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	8/15/2002	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	8/25/2005	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	8/26/2005	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	8/31/2005	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	8/11/2007	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	8/12/2007	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	8/15/2007	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	8/23/2007	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	8/24/2007	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	8/30/2008	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	8/31/2008	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	8/25/2011	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	9/24/1990	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	9/5/1991	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	9/1/1994	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	9/30/1995	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	9/27/1997	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	9/29/1998	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	9/10/2007	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	9/1/2008	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	9/8/2010	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	9/21/2010	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	9/25/2011	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	9/18/2013	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	9/22/2013	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	9/28/2013	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	9/30/2013	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	10/26/1992	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	10/8/1994	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	10/11/1998	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	10/15/1998	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	10/25/1999	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	10/26/1999	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	10/27/1999	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	10/14/2000	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	10/13/2002	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	10/28/2005	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	10/3/2006	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	10/9/2007	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/4/2010	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	10/9/2010	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	10/30/2010	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	10/7/2015	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	10/19/2015	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	10/22/2015	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	10/30/2015	1.5	1.07	53.40	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261302.5479
5573540	5/3/2001	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	5/5/2001	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	7/6/1991	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	7/29/1995	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	8/4/1994	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	8/7/2007	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	8/14/2007	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	8/22/2007	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	9/9/1995	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	9/22/1995	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	9/30/1997	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	9/24/2001	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	9/25/2001	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	9/30/2001	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	9/24/2007	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	9/2/2008	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	9/24/2010	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	9/30/2010	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	9/29/2013	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	9/13/2015	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	9/15/2015	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	9/17/2015	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	9/18/2015	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	10/2/1990	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	10/12/1998	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	10/24/2000	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	10/1/2001	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	10/11/2002	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	10/21/2002	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	10/6/2007	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	10/10/2007	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	10/1/2010	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	10/17/2015	1.4	1.07	53.29	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260778.7138
5573540	5/22/1993	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	5/4/2001	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	8/26/1996	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	8/23/2005	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	8/24/2005	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	8/13/2007	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/25/2007	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	9/17/1990	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	9/25/1990	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	80	cfu/100mL	200	283.2	104101.9519	260254.8797
5573540	9/8/1995	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	9/26/2001	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	9/1/2005	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	9/5/2005	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	9/9/2010	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	9/12/2010	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	9/20/2010	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	9/7/2011	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	9/27/2013	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	9/4/2015	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	9/6/2015	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	9/10/2015	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	9/16/2015	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	10/13/1998	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	10/14/1998	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	10/15/1999	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	10/5/2007	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	10/11/2007	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	10/20/2007	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	10/5/2010	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	10/8/2010	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	10/27/2012	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	10/5/2013	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	10/13/2015	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	10/14/2015	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	10/21/2015	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	10/23/2015	1.3	1.07	53.18	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260254.8797
5573540	5/23/1993	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	6/28/1991	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	7/4/1991	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	7/19/1991	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	8/18/1996	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	8/27/2005	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	8/8/2007	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	8/10/2007	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	9/26/1990	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	9/27/1990	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	9/28/1990	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	9/29/1990	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	9/30/1990	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	9/21/1995	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	9/9/1996	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	9/25/1996	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/28/1997	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	9/27/2001	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	9/8/2002	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	9/21/2007	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	9/16/2010	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	9/28/2010	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	9/29/2010	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	9/9/2012	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	10/13/1999	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	10/14/1999	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	10/3/2005	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	10/24/2005	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	10/30/2005	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	10/4/2006	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	10/4/2007	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	10/7/2007	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	10/8/2007	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	10/7/2010	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	10/10/2015	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	10/11/2015	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	10/16/2015	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	10/20/2015	1.2	1.07	53.07	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259731.0456
5573540	7/1/1991	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	7/8/1991	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	7/23/1995	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	30	cfu/100mL	200	283.2	38881.08172	259207.2115
5573540	8/12/1990	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	8/12/1991	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	8/5/1994	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	8/9/2007	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	8/20/2011	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	9/10/1991	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	9/29/1995	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	9/29/1997	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	9/13/2005	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	9/17/2005	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	9/5/2007	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	9/12/2007	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	9/15/2007	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	9/23/2007	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	9/10/2010	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	9/13/2010	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	9/17/2010	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	9/24/2011	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	9/17/2012	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	9/7/2015	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	9/14/2015	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/6/1996	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	10/2/2001	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	10/10/2002	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	10/9/2005	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	10/24/2007	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	10/6/2010	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	10/21/2011	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	10/6/2013	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	10/9/2015	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	10/12/2015	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	10/15/2015	1.1	1.07	52.97	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259207.2115
5573540	5/16/2001	1	1.07	52.86	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258683.3774
5573540	7/5/1991	1	1.07	52.86	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258683.3774
5573540	7/23/1994	1	1.07	52.86	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258683.3774
5573540	9/24/1996	1	1.07	52.86	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258683.3774
5573540	9/9/2002	1	1.07	52.86	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258683.3774
5573540	9/2/2005	1	1.07	52.86	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258683.3774
5573540	9/18/2005	1	1.07	52.86	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258683.3774
5573540	9/16/2007	1	1.07	52.86	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258683.3774
5573540	9/17/2007	1	1.07	52.86	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258683.3774
5573540	9/18/2007	1	1.07	52.86	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258683.3774
5573540	9/20/2007	1	1.07	52.86	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258683.3774
5573540	9/22/2007	1	1.07	52.86	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258683.3774
5573540	9/14/2010	1	1.07	52.86	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258683.3774
5573540	9/21/2011	1	1.07	52.86	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258683.3774
5573540	9/23/2011	1	1.07	52.86	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258683.3774
5573540	10/21/2007	1	1.07	52.86	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258683.3774
5573540	10/16/2012	1	1.07	52.86	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258683.3774
5573540	10/20/2012	1	1.07	52.86	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258683.3774
5573540	10/8/2015	1	1.07	52.86	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258683.3774
5573540	7/12/2002	0.99	1.07	52.85	4217	88.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258630.9939
5573540	9/7/2002	0.99	1.07	52.85	4217	88.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258630.9939
5573540	9/8/2011	0.99	1.07	52.85	4217	88.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258630.9939
5573540	10/7/2013	0.99	1.07	52.85	4217	88.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258630.9939
5573540	8/14/2012	0.97	1.07	52.83	4221	88.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258526.2271
5573540	9/2/1991	0.97	1.07	52.83	4221	88.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258526.2271
5573540	8/20/2002	0.96	1.07	52.82	4223	88.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258473.8437
5573540	8/24/2011	0.96	1.07	52.82	4223	88.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258473.8437
5573540	9/18/2010	0.96	1.07	52.82	4223	88.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258473.8437
5573540	6/27/2012	0.95	1.07	52.81	4226	88.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258421.4603
5573540	9/23/1995	0.95	1.07	52.81	4226	88.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258421.4603
5573540	9/15/2010	0.95	1.07	52.81	4226	88.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258421.4603
5573540	10/1/2005	0.95	1.07	52.81	4226	88.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258421.4603
5573540	7/20/1991	0.94	1.07	52.80	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258369.0769
5573540	8/17/2002	0.94	1.07	52.80	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258369.0769
5573540	8/23/2011	0.94	1.07	52.80	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258369.0769

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/13/2007	0.94	1.07	52.80	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258369.0769
5573540	10/28/2007	0.94	1.07	52.80	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258369.0769
5573540	10/19/2013	0.94	1.07	52.80	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258369.0769
5573540	6/21/2012	0.93	1.07	52.79	4236	88.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258316.6935
5573540	6/25/2012	0.93	1.07	52.79	4236	88.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258316.6935
5573540	8/26/2007	0.93	1.07	52.79	4236	88.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258316.6935
5573540	9/19/2007	0.93	1.07	52.79	4236	88.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258316.6935
5573540	10/8/2011	0.93	1.07	52.79	4236	88.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258316.6935
5573540	8/21/2002	0.92	1.07	52.77	4241	88.6311%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258264.3101
5573540	8/13/2012	0.92	1.07	52.77	4241	88.6311%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258264.3101
5573540	9/10/1995	0.92	1.07	52.77	4241	88.6311%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258264.3101
5573540	9/28/1998	0.92	1.07	52.77	4241	88.6311%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258264.3101
5573540	10/12/1999	0.92	1.07	52.77	4241	88.6311%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258264.3101
5573540	10/10/2005	0.92	1.07	52.77	4241	88.6311%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258264.3101
5573540	6/29/1991	0.91	1.07	52.76	4247	88.7565%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258211.9267
5573540	9/12/2005	0.91	1.07	52.76	4247	88.7565%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258211.9267
5573540	7/9/1991	0.9	1.07	52.75	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258159.5432
5573540	7/14/1995	0.9	1.07	52.75	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258159.5432
5573540	8/27/1995	0.9	1.07	52.75	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258159.5432
5573540	8/25/1998	0.9	1.07	52.75	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258159.5432
5573540	8/12/2002	0.9	1.07	52.75	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258159.5432
5573540	10/25/1992	0.9	1.07	52.75	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258159.5432
5573540	6/28/2012	0.89	1.07	52.74	4255	88.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258107.1598
5573540	9/27/2012	0.89	1.07	52.74	4255	88.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258107.1598
5573540	10/22/2002	0.89	1.07	52.74	4255	88.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258107.1598
5573540	10/19/2005	0.89	1.07	52.74	4255	88.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258107.1598
5573540	8/27/1991	0.87	1.07	52.72	4259	89.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258002.393
5573540	8/28/1993	0.87	1.07	52.72	4259	89.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258002.393
5573540	8/19/1995	0.87	1.07	52.72	4259	89.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258002.393
5573540	9/4/2005	0.87	1.07	52.72	4259	89.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258002.393
5573540	10/3/2012	0.87	1.07	52.72	4259	89.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258002.393
5573540	7/10/1991	0.86	1.07	52.71	4264	89.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257950.0096
5573540	9/14/2007	0.86	1.07	52.71	4264	89.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257950.0096
5573540	8/21/2011	0.85	1.07	52.70	4266	89.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257897.6262
5573540	10/7/2011	0.85	1.07	52.70	4266	89.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257897.6262
5573540	10/15/2013	0.85	1.07	52.70	4266	89.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257897.6262
5573540	6/26/2012	0.84	1.07	52.69	4269	89.2163%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257845.2428
5573540	10/12/2013	0.84	1.07	52.69	4269	89.2163%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257845.2428
5573540	8/14/1994	0.83	1.07	52.68	4271	89.2581%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257792.8594
5573540	8/27/2007	0.83	1.07	52.68	4271	89.2581%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257792.8594
5573540	9/3/2012	0.83	1.07	52.68	4271	89.2581%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257792.8594
5573540	5/7/2001	0.82	1.07	52.67	4274	89.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257740.476
5573540	6/30/1991	0.81	1.07	52.66	4275	89.3417%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257688.0926
5573540	8/28/2005	0.81	1.07	52.66	4275	89.3417%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257688.0926
5573540	10/30/2007	0.81	1.07	52.66	4275	89.3417%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257688.0926
5573540	10/13/2013	0.81	1.07	52.66	4275	89.3417%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257688.0926

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/22/2012	0.8	1.07	52.65	4279	89.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257635.7091
5573540	9/20/1995	0.8	1.07	52.65	4279	89.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257635.7091
5573540	7/21/1991	0.79	1.07	52.64	4281	89.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257583.3257
5573540	8/28/1991	0.79	1.07	52.64	4281	89.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257583.3257
5573540	9/4/2007	0.79	1.07	52.64	4281	89.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257583.3257
5573540	10/9/2002	0.79	1.07	52.64	4281	89.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257583.3257
5573540	10/29/2007	0.79	1.07	52.64	4281	89.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257583.3257
5573540	6/24/2012	0.78	1.07	52.63	4286	89.5716%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257530.9423
5573540	8/28/2007	0.78	1.07	52.63	4286	89.5716%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257530.9423
5573540	9/21/2005	0.78	1.07	52.63	4286	89.5716%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257530.9423
5573540	7/22/1991	0.77	1.07	52.61	4289	89.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257478.5589
5573540	7/3/2012	0.77	1.07	52.61	4289	89.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257478.5589
5573540	7/9/2012	0.77	1.07	52.61	4289	89.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257478.5589
5573540	10/11/2013	0.77	1.07	52.61	4289	89.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257478.5589
5573540	7/18/2002	0.76	1.07	52.60	4293	89.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257426.1755
5573540	8/12/1994	0.76	1.07	52.60	4293	89.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257426.1755
5573540	10/8/2002	0.76	1.07	52.60	4293	89.7179%	Fecal_coliform	75	cfu/100mL	200	283.2	96534.81581	257426.1755
5573540	10/4/2005	0.76	1.07	52.60	4293	89.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257426.1755
5573540	9/22/2011	0.75	1.07	52.59	4297	89.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257373.7921
5573540	10/22/1992	0.75	1.07	52.59	4297	89.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257373.7921
5573540	10/6/2011	0.75	1.07	52.59	4297	89.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257373.7921
5573540	10/31/2011	0.75	1.07	52.59	4297	89.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257373.7921
5573540	7/23/1991	0.74	1.07	52.58	4301	89.8851%	Fecal_coliform	380	cfu/100mL	200	283.2	488910.6765	257321.4087
5573540	9/24/1995	0.74	1.07	52.58	4301	89.8851%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257321.4087
5573540	10/28/2012	0.74	1.07	52.58	4301	89.8851%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257321.4087
5573540	10/15/2011	0.72	1.07	52.56	4304	89.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257216.6419
5573540	10/14/2013	0.72	1.07	52.56	4304	89.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257216.6419
5573540	10/16/2013	0.72	1.07	52.56	4304	89.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257216.6419
5573540	5/17/2001	0.71	1.07	52.55	4307	90.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257164.2584
5573540	9/6/1991	0.71	1.07	52.55	4307	90.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257164.2584
5573540	9/28/1995	0.71	1.07	52.55	4307	90.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257164.2584
5573540	10/31/2007	0.71	1.07	52.55	4307	90.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257164.2584
5573540	10/9/2011	0.71	1.07	52.55	4307	90.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257164.2584
5573540	10/9/2013	0.71	1.07	52.55	4307	90.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257164.2584
5573540	8/2/1996	0.7	1.07	52.54	4313	90.1358%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257111.875
5573540	8/29/2007	0.69	1.07	52.53	4314	90.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257059.4916
5573540	10/5/2011	0.69	1.07	52.53	4314	90.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257059.4916
5573540	10/8/2013	0.69	1.07	52.53	4314	90.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257059.4916
5573540	9/3/2005	0.68	1.07	52.52	4317	90.2194%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257007.1082
5573540	10/2/1991	0.68	1.07	52.52	4317	90.2194%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257007.1082
5573540	8/11/1990	0.67	1.07	52.51	4319	90.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256954.7248
5573540	8/27/1996	0.67	1.07	52.51	4319	90.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256954.7248
5573540	8/22/2011	0.67	1.07	52.51	4319	90.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256954.7248
5573540	9/2/2007	0.67	1.07	52.51	4319	90.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256954.7248
5573540	10/25/2007	0.67	1.07	52.51	4319	90.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256954.7248
5573540	8/20/1994	0.65	1.07	52.49	4324	90.3657%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256849.958

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/27/2012	0.65	1.07	52.49	4324	90.3657%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256849.958
5573540	10/10/2013	0.64	1.07	52.48	4326	90.4075%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256797.5746
5573540	7/16/2012	0.63	1.07	52.46	4327	90.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256745.1912
5573540	9/25/1995	0.63	1.07	52.46	4327	90.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256745.1912
5573540	9/29/1996	0.63	1.07	52.46	4327	90.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256745.1912
5573540	9/1/2007	0.63	1.07	52.46	4327	90.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256745.1912
5573540	9/3/2007	0.63	1.07	52.46	4327	90.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256745.1912
5573540	9/9/2005	0.62	1.07	52.45	4332	90.5329%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256692.8077
5573540	10/31/2012	0.62	1.07	52.45	4332	90.5329%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256692.8077
5573540	6/23/2012	0.61	1.07	52.44	4334	90.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256640.4243
5573540	7/1/2012	0.6	1.07	52.43	4335	90.5956%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256588.0409
5573540	8/18/2012	0.6	1.07	52.43	4335	90.5956%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256588.0409
5573540	9/11/2005	0.6	1.07	52.43	4335	90.5956%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256588.0409
5573540	10/29/2013	0.6	1.07	52.43	4335	90.5956%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256588.0409
5573540	9/10/2005	0.59	1.07	52.42	4339	90.6792%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256535.6575
5573540	10/7/2002	0.59	1.07	52.42	4339	90.6792%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256535.6575
5573540	7/23/2002	0.58	1.07	52.41	4341	90.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256483.2741
5573540	9/6/2012	0.58	1.07	52.41	4341	90.7210%	Fecal_coliform	220	cfu/100mL	200	283.2	282131.6015	256483.2741
5573540	9/23/2012	0.58	1.07	52.41	4341	90.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256483.2741
5573540	10/2/2005	0.58	1.07	52.41	4341	90.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256483.2741
5573540	10/21/2012	0.58	1.07	52.41	4341	90.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256483.2741
5573540	10/22/2011	0.57	1.07	52.40	4346	90.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256430.8907
5573540	7/24/1991	0.56	1.07	52.39	4347	90.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256378.5073
5573540	8/13/1991	0.56	1.07	52.39	4347	90.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256378.5073
5573540	8/7/2012	0.56	1.07	52.39	4347	90.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256378.5073
5573540	9/11/1991	0.56	1.07	52.39	4347	90.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256378.5073
5573540	10/11/2011	0.56	1.07	52.39	4347	90.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256378.5073
5573540	10/4/2012	0.56	1.07	52.39	4347	90.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256378.5073
5573540	10/17/2013	0.56	1.07	52.39	4347	90.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256378.5073
5573540	10/6/2005	0.55	1.07	52.38	4354	90.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256326.1239
5573540	10/11/2005	0.55	1.07	52.38	4354	90.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256326.1239
5573540	7/26/2002	0.54	1.07	52.37	4356	91.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256273.7405
5573540	9/27/1998	0.54	1.07	52.37	4356	91.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256273.7405
5573540	9/19/2012	0.54	1.07	52.37	4356	91.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256273.7405
5573540	7/4/2012	0.53	1.07	52.36	4359	91.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256221.357
5573540	8/30/2007	0.53	1.07	52.36	4359	91.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256221.357
5573540	10/28/2013	0.53	1.07	52.36	4359	91.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256221.357
5573540	8/3/1994	0.52	1.07	52.35	4362	91.1599%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256168.9736
5573540	8/31/1998	0.52	1.07	52.35	4362	91.1599%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256168.9736
5573540	8/31/2007	0.52	1.07	52.35	4362	91.1599%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256168.9736
5573540	6/29/2012	0.51	1.07	52.34	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256116.5902
5573540	7/2/2012	0.51	1.07	52.34	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256116.5902
5573540	10/5/1996	0.51	1.07	52.34	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256116.5902
5573540	10/7/2012	0.51	1.07	52.34	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256116.5902
5573540	10/29/2012	0.51	1.07	52.34	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256116.5902
5573540	10/18/2013	0.51	1.07	52.34	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256116.5902

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/17/1991	0.5	1.07	52.33	4371	91.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256064.2068
5573540	8/26/1994	0.5	1.07	52.33	4371	91.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256064.2068
5573540	9/27/1995	0.5	1.07	52.33	4371	91.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256064.2068
5573540	10/10/2011	0.5	1.07	52.33	4371	91.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256064.2068
5573540	10/16/2011	0.5	1.07	52.33	4371	91.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256064.2068
5573540	5/2/2003	0.49	1.07	52.31	4376	91.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256011.8234
5573540	10/4/2011	0.49	1.07	52.31	4376	91.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256011.8234
5573540	10/30/2012	0.49	1.07	52.31	4376	91.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256011.8234
5573540	9/10/2012	0.48	1.07	52.30	4379	91.5152%	Fecal_coliform	183	cfu/100mL	200	283.2	234202.8876	255959.44
5573540	10/5/2005	0.48	1.07	52.30	4379	91.5152%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255959.44
5573540	10/27/2013	0.48	1.07	52.30	4379	91.5152%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255959.44
5573540	7/19/2002	0.47	1.07	52.29	4382	91.5778%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255907.0566
5573540	9/30/2011	0.47	1.07	52.29	4382	91.5778%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255907.0566
5573540	8/11/2002	0.46	1.07	52.28	4384	91.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255854.6732
5573540	9/20/1991	0.46	1.07	52.28	4384	91.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255854.6732
5573540	8/26/1998	0.45	1.07	52.27	4386	91.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255802.2898
5573540	8/19/1991	0.42	1.07	52.24	4387	91.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255645.1395
5573540	9/19/1995	0.42	1.07	52.24	4387	91.6823%	Fecal_coliform	930	cfu/100mL	200	283.2	1188749.899	255645.1395
5573540	5/8/2001	0.41	1.07	52.23	4389	91.7241%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255592.7561
5573540	9/23/1996	0.41	1.07	52.23	4389	91.7241%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255592.7561
5573540	10/1/2011	0.41	1.07	52.23	4389	91.7241%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255592.7561
5573540	10/23/2011	0.41	1.07	52.23	4389	91.7241%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255592.7561
5573540	7/25/1991	0.4	1.07	52.22	4393	91.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255540.3727
5573540	7/5/2012	0.4	1.07	52.22	4393	91.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255540.3727
5573540	7/6/2012	0.4	1.07	52.22	4393	91.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255540.3727
5573540	10/30/2000	0.4	1.07	52.22	4393	91.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255540.3727
5573540	10/2/2011	0.4	1.07	52.22	4393	91.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255540.3727
5573540	9/7/1991	0.39	1.07	52.21	4398	91.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255487.9893
5573540	10/25/2005	0.39	1.07	52.21	4398	91.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255487.9893
5573540	8/15/2012	0.38	1.07	52.20	4400	91.9540%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255435.6059
5573540	10/6/2002	0.38	1.07	52.20	4400	91.9540%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255435.6059
5573540	7/13/2002	0.37	1.07	52.19	4402	91.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255383.2225
5573540	8/14/1991	0.37	1.07	52.19	4402	91.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255383.2225
5573540	9/7/1995	0.37	1.07	52.19	4402	91.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255383.2225
5573540	10/8/2012	0.37	1.07	52.19	4402	91.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255383.2225
5573540	9/17/1995	0.36	1.07	52.18	4406	92.0794%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255330.8391
5573540	7/24/2002	0.35	1.07	52.16	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255278.4557
5573540	8/31/2012	0.35	1.07	52.16	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255278.4557
5573540	9/25/1994	0.35	1.07	52.16	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255278.4557
5573540	9/26/1994	0.35	1.07	52.16	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255278.4557
5573540	9/26/1998	0.35	1.07	52.16	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255278.4557
5573540	10/3/2002	0.35	1.07	52.16	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255278.4557
5573540	10/26/2005	0.35	1.07	52.16	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255278.4557
5573540	10/3/2011	0.35	1.07	52.16	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255278.4557
5573540	10/9/2012	0.35	1.07	52.16	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255278.4557
5573540	7/28/2002	0.34	1.07	52.15	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255226.0722

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/2/1991	0.34	1.07	52.15	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255226.0722
5573540	8/20/1991	0.34	1.07	52.15	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255226.0722
5573540	9/8/1994	0.34	1.07	52.15	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255226.0722
5573540	10/23/1992	0.34	1.07	52.15	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255226.0722
5573540	10/20/2013	0.34	1.07	52.15	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255226.0722
5573540	6/30/2012	0.33	1.07	52.14	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255173.6888
5573540	7/26/1991	0.33	1.07	52.14	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255173.6888
5573540	7/29/1991	0.33	1.07	52.14	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255173.6888
5573540	8/16/1991	0.33	1.07	52.14	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255173.6888
5573540	8/20/1995	0.33	1.07	52.14	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255173.6888
5573540	8/8/2012	0.33	1.07	52.14	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255173.6888
5573540	8/26/2012	0.33	1.07	52.14	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255173.6888
5573540	9/26/1995	0.33	1.07	52.14	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255173.6888
5573540	10/24/2011	0.33	1.07	52.14	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255173.6888
5573540	10/29/2011	0.33	1.07	52.14	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255173.6888
5573540	10/26/2013	0.33	1.07	52.14	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255173.6888
5573540	7/27/1991	0.32	1.07	52.13	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255121.3054
5573540	7/10/2012	0.32	1.07	52.13	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255121.3054
5573540	8/3/1991	0.32	1.07	52.13	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255121.3054
5573540	8/15/1991	0.32	1.07	52.13	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255121.3054
5573540	8/28/1995	0.32	1.07	52.13	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255121.3054
5573540	9/18/1995	0.32	1.07	52.13	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255121.3054
5573540	10/30/2011	0.32	1.07	52.13	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255121.3054
5573540	10/10/2012	0.32	1.07	52.13	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255121.3054
5573540	10/10/1994	0.31	1.07	52.12	4441	92.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255068.922
5573540	7/24/1994	0.3	1.07	52.11	4442	92.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255016.5386
5573540	7/17/2012	0.3	1.07	52.11	4442	92.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255016.5386
5573540	8/28/1994	0.3	1.07	52.11	4442	92.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255016.5386
5573540	9/28/2012	0.3	1.07	52.11	4442	92.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255016.5386
5573540	10/28/2011	0.3	1.07	52.11	4442	92.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255016.5386
5573540	10/23/2013	0.3	1.07	52.11	4442	92.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255016.5386
5573540	7/25/2002	0.29	1.07	52.10	4448	92.9572%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254964.1552
5573540	9/12/1991	0.29	1.07	52.10	4448	92.9572%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254964.1552
5573540	7/28/1991	0.28	1.07	52.09	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254911.7718
5573540	8/1/1991	0.28	1.07	52.09	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254911.7718
5573540	8/18/1991	0.28	1.07	52.09	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254911.7718
5573540	8/21/1991	0.28	1.07	52.09	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254911.7718
5573540	9/14/2012	0.28	1.07	52.09	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254911.7718
5573540	10/25/2011	0.28	1.07	52.09	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254911.7718
5573540	10/24/2013	0.28	1.07	52.09	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254911.7718
5573540	10/25/2013	0.28	1.07	52.09	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254911.7718
5573540	9/20/2002	0.27	1.07	52.08	4458	93.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254859.3884
5573540	9/20/2012	0.27	1.07	52.08	4458	93.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254859.3884
5573540	9/24/2012	0.27	1.07	52.08	4458	93.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254859.3884
5573540	10/11/2012	0.27	1.07	52.08	4458	93.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254859.3884
5573540	10/30/1994	0.26	1.07	52.07	4462	93.2497%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254807.005

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/23/1991	0.25	1.07	52.06	4463	93.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254754.6215
5573540	9/10/2002	0.25	1.07	52.06	4463	93.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254754.6215
5573540	10/27/2011	0.25	1.07	52.06	4463	93.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254754.6215
5573540	10/21/2013	0.25	1.07	52.06	4463	93.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254754.6215
5573540	10/22/2013	0.25	1.07	52.06	4463	93.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254754.6215
5573540	7/30/1991	0.24	1.07	52.05	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254702.2381
5573540	7/31/1991	0.24	1.07	52.05	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254702.2381
5573540	8/22/1991	0.24	1.07	52.05	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254702.2381
5573540	9/2/1994	0.24	1.07	52.05	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254702.2381
5573540	9/27/1994	0.24	1.07	52.05	4468	93.3751%	Fecal_coliform	230	cfu/100mL	200	283.2	292907.5739	254702.2381
5573540	9/11/2012	0.24	1.07	52.05	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254702.2381
5573540	10/27/2005	0.24	1.07	52.05	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254702.2381
5573540	8/4/1991	0.23	1.07	52.04	4475	93.5214%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254649.8547
5573540	9/22/1991	0.23	1.07	52.04	4475	93.5214%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254649.8547
5573540	9/15/2012	0.23	1.07	52.04	4475	93.5214%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254649.8547
5573540	7/15/2002	0.22	1.07	52.03	4478	93.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254597.4713
5573540	10/29/1994	0.22	1.07	52.03	4478	93.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254597.4713
5573540	7/20/2002	0.21	1.07	52.01	4480	93.6259%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254545.0879
5573540	8/19/2012	0.21	1.07	52.01	4480	93.6259%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254545.0879
5573540	9/25/1998	0.21	1.07	52.01	4480	93.6259%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254545.0879
5573540	9/22/2005	0.21	1.07	52.01	4480	93.6259%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254545.0879
5573540	7/25/1994	0.2	1.07	52.00	4484	93.7095%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254492.7045
5573540	7/18/2012	0.2	1.07	52.00	4484	93.7095%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254492.7045
5573540	8/24/1991	0.2	1.07	52.00	4484	93.7095%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254492.7045
5573540	8/9/2012	0.2	1.07	52.00	4484	93.7095%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254492.7045
5573540	7/29/2002	0.19	1.07	51.99	4488	93.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254440.3211
5573540	8/3/2002	0.19	1.07	51.99	4488	93.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254440.3211
5573540	10/26/2011	0.19	1.07	51.99	4488	93.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254440.3211
5573540	10/12/2012	0.19	1.07	51.99	4488	93.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254440.3211
5573540	8/4/2002	0.18	1.07	51.98	4492	93.8767%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254387.9377
5573540	9/28/1991	0.17	1.07	51.97	4493	93.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254335.5543
5573540	9/15/2002	0.17	1.07	51.97	4493	93.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254335.5543
5573540	9/16/2012	0.17	1.07	51.97	4493	93.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254335.5543
5573540	7/19/2012	0.16	1.07	51.96	4496	93.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254283.1709
5573540	8/6/1994	0.16	1.07	51.96	4496	93.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254283.1709
5573540	9/4/2012	0.16	1.07	51.96	4496	93.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254283.1709
5573540	9/12/2012	0.16	1.07	51.96	4496	93.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254283.1709
5573540	9/29/2012	0.16	1.07	51.96	4496	93.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254283.1709
5573540	7/11/2012	0.15	1.07	51.95	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254230.7874
5573540	7/13/2012	0.15	1.07	51.95	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254230.7874
5573540	8/21/1994	0.15	1.07	51.95	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254230.7874
5573540	9/13/1991	0.15	1.07	51.95	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254230.7874
5573540	9/28/1994	0.15	1.07	51.95	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254230.7874
5573540	9/29/1994	0.15	1.07	51.95	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254230.7874
5573540	7/12/2012	0.14	1.07	51.94	4507	94.1902%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254178.404
5573540	7/20/2012	0.14	1.07	51.94	4507	94.1902%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254178.404

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/11/1995	0.14	1.07	51.94	4507	94.1902%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254178.404
5573540	9/13/2012	0.14	1.07	51.94	4507	94.1902%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254178.404
5573540	8/28/2012	0.13	1.07	51.93	4511	94.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254126.0206
5573540	9/8/1991	0.13	1.07	51.93	4511	94.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254126.0206
5573540	7/21/2012	0.12	1.07	51.92	4513	94.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254073.6372
5573540	8/15/1994	0.12	1.07	51.92	4513	94.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254073.6372
5573540	9/6/1995	0.12	1.07	51.92	4513	94.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254073.6372
5573540	9/30/2012	0.12	1.07	51.92	4513	94.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254073.6372
5573540	7/31/2002	0.11	1.07	51.91	4517	94.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254021.2538
5573540	8/10/2012	0.11	1.07	51.91	4517	94.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254021.2538
5573540	8/20/2012	0.11	1.07	51.91	4517	94.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254021.2538
5573540	9/30/1991	0.11	1.07	51.91	4517	94.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254021.2538
5573540	10/29/2000	0.11	1.07	51.91	4517	94.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254021.2538
5573540	5/1/2003	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	7/26/1994	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	7/14/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	7/21/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	7/30/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	7/3/2003	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	7/4/2003	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	7/5/2003	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	7/6/2003	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	7/7/2003	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	8/5/1991	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	8/17/1993	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	8/1/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	8/2/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	8/5/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	8/6/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	8/7/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	8/8/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	8/9/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	8/10/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	9/30/1994	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	9/11/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	9/12/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	9/13/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	9/14/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	9/16/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	9/21/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	9/22/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	9/23/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	9/24/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	9/25/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	9/26/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	9/27/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/28/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	9/29/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	9/30/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	10/28/1994	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	10/22/2000	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	10/25/2000	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	10/26/2000	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	10/27/2000	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	10/28/2000	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	10/31/2000	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	10/1/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	10/2/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	10/5/2002	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	10/12/2005	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	10/13/2005	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	10/14/2005	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	10/15/2005	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	10/16/2005	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	10/17/2005	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	10/18/2005	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	10/1/2012	0.1	1.07	51.90	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253968.8704
5573540	7/22/2012	0.09	1.07	51.89	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253916.487
5573540	7/31/2012	0.09	1.07	51.89	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253916.487
5573540	8/25/1991	0.09	1.07	51.89	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253916.487
5573540	8/1/2012	0.09	1.07	51.89	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253916.487
5573540	8/3/2012	0.09	1.07	51.89	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253916.487
5573540	8/4/2012	0.09	1.07	51.89	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253916.487
5573540	10/27/1994	0.09	1.07	51.89	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253916.487
5573540	7/24/2012	0.08	1.07	51.88	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253864.1036
5573540	8/23/2012	0.08	1.07	51.88	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253864.1036
5573540	9/16/1995	0.08	1.07	51.88	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253864.1036
5573540	9/10/1996	0.08	1.07	51.88	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253864.1036
5573540	10/4/1996	0.08	1.07	51.88	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253864.1036
5573540	10/2/2012	0.08	1.07	51.88	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253864.1036
5573540	7/25/2012	0.07	1.07	51.87	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253811.7202
5573540	7/30/2012	0.07	1.07	51.87	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253811.7202
5573540	8/26/1991	0.07	1.07	51.87	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253811.7202
5573540	8/2/2012	0.07	1.07	51.87	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253811.7202
5573540	9/14/1991	0.07	1.07	51.87	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253811.7202
5573540	9/5/1995	0.07	1.07	51.87	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253811.7202
5573540	10/1/1991	0.07	1.07	51.87	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253811.7202
5573540	10/1/1994	0.07	1.07	51.87	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253811.7202
5573540	7/23/2012	0.06	1.07	51.85	4597	96.0711%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253759.3367
5573540	7/29/2012	0.06	1.07	51.85	4597	96.0711%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253759.3367
5573540	8/11/2012	0.06	1.07	51.85	4597	96.0711%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253759.3367
5573540	8/12/2012	0.06	1.07	51.85	4597	96.0711%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253759.3367

Fecal Coliform Load Duration Curve Calculations
(E-05)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/24/1994	0.06	1.07	51.85	4597	96.0711%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253759.3367
5573540	7/26/2012	0.05	1.07	51.84	4602	96.1755%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253706.9533
5573540	7/27/2012	0.05	1.07	51.84	4602	96.1755%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253706.9533
5573540	9/9/1994	0.05	1.07	51.84	4602	96.1755%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253706.9533
5573540	7/28/2012	0.04	1.07	51.83	4605	96.2382%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253654.5699
5573540	8/21/2012	0.04	1.07	51.83	4605	96.2382%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253654.5699
5573540	8/24/2012	0.04	1.07	51.83	4605	96.2382%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253654.5699
5573540	8/29/1995	0.03	1.07	51.82	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253602.1865
5573540	8/19/1996	0.03	1.07	51.82	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253602.1865
5573540	8/22/2012	0.03	1.07	51.82	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253602.1865
5573540	9/25/1991	0.03	1.07	51.82	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253602.1865
5573540	9/29/1991	0.03	1.07	51.82	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253602.1865
5573540	10/2/1994	0.03	1.07	51.82	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253602.1865
5573540	10/19/1994	0.03	1.07	51.82	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253602.1865
5573540	9/3/1994	0.02	1.07	51.81	4615	96.4472%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253549.8031
5573540	9/22/1996	0.02	1.07	51.81	4615	96.4472%	Fecal_coliform	320	cfu/100mL	200	283.2	405679.685	253549.8031
5573540	10/25/1994	0.02	1.07	51.81	4615	96.4472%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253549.8031
5573540	8/3/1996	0.01	1.07	51.80	4618	96.5099%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253497.4197
5573540	9/9/1991	0.01	1.07	51.80	4618	96.5099%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253497.4197
5573540	9/23/1991	0.01	1.07	51.80	4618	96.5099%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253497.4197
5573540	10/18/1994	0.01	1.07	51.80	4618	96.5099%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253497.4197
5573540	7/27/1994	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	7/28/1994	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	7/29/1994	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	7/30/1994	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	7/31/1994	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	7/15/1995	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	7/16/1995	0	1.07	51.79	4622	96.5935%	Fecal_coliform	333	cfu/100mL	200	283.2	421985.9854	253445.0363
5573540	7/17/1995	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	7/18/1995	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	7/19/1995	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	7/20/1995	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	7/21/1995	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	7/22/1995	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	7/30/1995	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	7/31/1995	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	8/7/1993	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	8/18/1993	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	8/1/1994	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	8/7/1994	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	8/8/1994	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	8/9/1994	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	8/10/1994	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	8/11/1994	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	8/16/1994	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363
5573540	8/17/1994	0	1.07	51.79	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	253445.0363

Middle Sangamon River (E-06)
Fecal Coliform

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/5/2008	19200	0.94	17996.56	1	0.0209%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88069687.78
5573540	6/4/2008	16900	0.94	15834.56	2	0.0418%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	77489517.03
5573540	6/7/2008	15300	0.94	14330.56	3	0.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	70129398.24
5573540	5/12/2002	14100	0.94	13202.56	4	0.0836%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64609309.15
5573540	6/6/2008	13300	0.94	12450.56	5	0.1045%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	60929249.76
5573540	6/8/2008	12700	0.94	11886.56	6	0.1254%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58169205.22
5573540	5/17/1990	12100	0.94	11322.56	7	0.1463%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	55409160.67
5573540	9/15/2008	11900	0.94	11134.56	8	0.1672%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54489145.83
5573540	5/19/1995	11100	0.94	10382.56	9	0.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50809086.43
5573540	9/14/2008	11000	0.94	10288.56	10	0.2090%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50349079.01
5573540	5/16/1990	10100	0.94	9442.56	11	0.2299%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	46209012.19
5573540	5/13/2002	9900	0.94	9254.56	12	0.2508%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45288997.35
5573540	6/23/2010	9240	0.94	8634.16	13	0.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42252948.35
5573540	6/22/2010	9050	0.94	8455.56	14	0.2926%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	41378934.24
5573540	5/18/1995	9040	0.94	8446.16	15	0.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	41332933.5
5573540	5/17/2009	8940	0.94	8352.16	16	0.3344%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40872926.07
5573540	6/9/2008	8800	0.94	8220.56	17	0.3553%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40228915.68
5573540	9/16/2008	8770	0.94	8192.36	18	0.3762%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40090913.45
5573540	5/20/1995	8420	0.94	7863.36	19	0.3971%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38480887.47
5573540	6/3/2008	8330	0.94	7778.76	20	0.4180%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38066880.79
5573540	9/17/2008	8260	0.94	7712.96	21	0.4389%	Fecal_coliform	290	cfu/100mL	200	283.2	54730069.61	37744875.59
5573540	6/19/1998	8110	0.94	7571.96	22	0.4598%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37054864.46
5573540	5/9/1996	8060	0.94	7524.96	23	0.4807%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36824860.74
5573540	5/16/2009	7760	0.94	7242.96	24	0.5016%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35444838.47
5573540	6/16/1998	7760	0.94	7242.96	24	0.5016%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35444838.47
5573540	10/31/2009	7700	0.94	7186.56	26	0.5434%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35168834.02
5573540	9/18/2008	7690	0.94	7177.16	27	0.5643%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35122833.27
5573540	5/4/1998	7680	0.94	7167.76	28	0.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35076832.53
5573540	5/18/1990	7670	0.94	7158.36	29	0.6061%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35030831.79
5573540	7/16/2014	7670	0.94	7158.36	29	0.6061%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35030831.79
5573540	6/20/1998	7570	0.94	7064.36	31	0.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34570824.37
5573540	5/14/2009	7510	0.94	7007.96	32	0.6688%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34294819.91

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/18/2009	7400	0.94	6904.56	33	0.6897%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33788811.75
5573540	6/10/2008	7310	0.94	6819.96	34	0.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33374805.06
5573540	6/21/2010	7190	0.94	6707.16	35	0.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32822796.15
5573540	5/30/2011	7030	0.94	6556.76	36	0.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32086784.28
5573540	7/17/2014	7010	0.94	6537.96	37	0.7732%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31994782.79
5573540	5/14/2002	6800	0.94	6340.56	38	0.7941%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31028767.2
5573540	5/5/1998	6740	0.94	6284.16	39	0.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30752762.75
5573540	6/23/1998	6710	0.94	6255.96	40	0.8359%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30614760.52
5573540	5/8/1996	6620	0.94	6171.36	41	0.8568%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30200753.84
5573540	5/31/2011	6600	0.94	6152.56	42	0.8777%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30108752.35
5573540	6/17/1998	6560	0.94	6114.96	43	0.8986%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29924749.38
5573540	5/17/1995	6250	0.94	5823.56	44	0.9195%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28498726.37
5573540	5/29/2011	6230	0.94	5804.76	45	0.9404%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28406724.88
5573540	7/28/2006	6150	0.94	5729.56	46	0.9613%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28038718.95
5573540	5/21/1995	6130	0.94	5710.76	47	0.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27946717.46
5573540	6/24/2010	6130	0.94	5710.76	47	0.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27946717.46
5573540	9/19/2008	6130	0.94	5710.76	47	0.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27946717.46
5573540	5/14/1996	6120	0.94	5701.36	50	1.0449%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27900716.72
5573540	5/11/1996	6080	0.94	5663.76	51	1.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27716713.75
5573540	5/13/1996	6070	0.94	5654.36	52	1.0867%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27670713.01
5573540	5/19/2009	6060	0.94	5644.96	53	1.1076%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27624712.26
5573540	6/21/1998	6060	0.94	5644.96	53	1.1076%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27624712.26
5573540	7/15/2014	6030	0.94	5616.76	55	1.1494%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27486710.04
5573540	5/16/2002	6020	0.94	5607.36	56	1.1703%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27440709.29
5573540	6/16/2004	5960	0.94	5550.96	57	1.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27164704.84
5573540	5/26/2011	5950	0.94	5541.56	58	1.2121%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27118704.1
5573540	5/15/2002	5940	0.94	5532.16	59	1.2330%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27072703.35
5573540	6/18/2010	5930	0.94	5522.76	60	1.2539%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27026702.61
5573540	5/12/1996	5910	0.94	5503.96	61	1.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26934701.13
5573540	5/9/1998	5900	0.94	5494.56	62	1.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26888700.39
5573540	6/20/2010	5890	0.94	5485.16	63	1.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26842699.64
5573540	6/11/2008	5870	0.94	5466.36	64	1.3375%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26750698.16

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/27/1996	5800	0.94	5400.56	65	1.3584%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26428692.96
5573540	5/8/1998	5800	0.94	5400.56	65	1.3584%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26428692.96
5573540	5/24/1995	5790	0.94	5391.16	67	1.4002%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26382692.22
5573540	5/25/1995	5780	0.94	5381.76	68	1.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26336691.48
5573540	5/20/2009	5750	0.94	5353.56	69	1.4420%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26198689.25
5573540	6/14/2015	5710	0.94	5315.96	70	1.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26014686.28
5573540	7/13/2015	5690	0.94	5297.16	71	1.4838%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25922684.79
5573540	5/29/1995	5660	0.94	5268.96	72	1.5047%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25784682.57
5573540	6/17/2010	5620	0.94	5231.36	73	1.5256%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25600679.6
5573540	5/17/2002	5580	0.94	5193.76	74	1.5465%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25416676.63
5573540	6/28/2013	5570	0.94	5184.36	75	1.5674%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25370675.89
5573540	7/12/2015	5570	0.94	5184.36	75	1.5674%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25370675.89
5573540	10/21/1993	5570	0.94	5184.36	75	1.5674%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25370675.89
5573540	7/26/1992	5560	0.94	5174.96	78	1.6301%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25324675.14
5573540	10/30/2009	5540	0.94	5156.16	79	1.6510%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25232673.66
5573540	7/12/2008	5530	0.94	5146.76	80	1.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25186672.92
5573540	7/18/2014	5500	0.94	5118.56	81	1.6928%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25048670.69
5573540	6/29/2013	5490	0.94	5109.16	82	1.7137%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25002669.95
5573540	5/26/1995	5470	0.94	5090.36	83	1.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24910668.46
5573540	6/18/1998	5460	0.94	5080.96	84	1.7555%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24864667.72
5573540	5/28/1995	5450	0.94	5071.56	85	1.7764%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24818666.98
5573540	6/19/2010	5420	0.94	5043.36	86	1.7973%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24680664.75
5573540	7/14/2015	5380	0.94	5005.76	87	1.8182%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24496661.78
5573540	5/28/2011	5240	0.94	4874.16	88	1.8391%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23852651.39
5573540	5/10/1996	5230	0.94	4864.76	89	1.8600%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23806650.64
5573540	6/13/2015	5230	0.94	4864.76	89	1.8600%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23806650.64
5573540	5/30/1995	5190	0.94	4827.16	91	1.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23622647.67
5573540	5/27/1995	5170	0.94	4808.36	92	1.9227%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23530646.19
5573540	6/16/2010	5060	0.94	4704.96	93	1.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23024638.02
5573540	5/3/1998	5050	0.94	4695.56	94	1.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22978637.28
5573540	7/29/2006	5050	0.94	4695.56	94	1.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22978637.28
5573540	7/15/2008	4970	0.94	4620.36	96	2.0063%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22610631.34

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/1/2009	4930	0.94	4582.76	97	2.0272%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22426628.37
5573540	5/22/1995	4910	0.94	4563.96	98	2.0481%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22334626.89
5573540	6/15/1998	4910	0.94	4563.96	98	2.0481%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22334626.89
5573540	6/22/1990	4880	0.94	4535.76	100	2.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22196624.66
5573540	6/6/2001	4880	0.94	4535.76	100	2.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22196624.66
5573540	6/21/1990	4860	0.94	4516.96	102	2.1317%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22104623.18
5573540	6/20/1990	4830	0.94	4488.76	103	2.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21966620.95
5573540	10/20/1993	4810	0.94	4469.96	104	2.1735%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21874619.46
5573540	5/11/1998	4770	0.94	4432.36	105	2.1944%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21690616.49
5573540	5/19/1990	4750	0.94	4413.56	106	2.2153%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21598615.01
5573540	9/20/2008	4740	0.94	4404.16	107	2.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21552614.27
5573540	6/20/2009	4730	0.94	4394.76	108	2.2571%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21506613.52
5573540	7/13/2008	4690	0.94	4357.16	109	2.2780%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21322610.55
5573540	5/7/2002	4670	0.94	4338.36	110	2.2989%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21230609.07
5573540	6/12/2008	4650	0.94	4319.56	111	2.3197%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21138607.59
5573540	7/27/1992	4650	0.94	4319.56	111	2.3197%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21138607.59
5573540	6/14/2010	4630	0.94	4300.76	113	2.3615%	Fecal_coliform	2100	cfu/100mL	200	283.2	220989364.1	21046606.1
5573540	5/1/2011	4620	0.94	4291.36	114	2.3824%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21000605.36
5573540	10/23/1993	4620	0.94	4291.36	114	2.3824%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21000605.36
5573540	7/6/1993	4590	0.94	4263.16	116	2.4242%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20862603.13
5573540	5/15/1996	4580	0.94	4253.76	117	2.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20816602.39
5573540	5/12/1998	4520	0.94	4197.36	118	2.4660%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20540597.93
5573540	6/17/2004	4520	0.94	4197.36	118	2.4660%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20540597.93
5573540	7/5/1993	4520	0.94	4197.36	118	2.4660%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20540597.93
5573540	5/2/2009	4500	0.94	4178.56	121	2.5287%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20448596.45
5573540	10/22/1993	4500	0.94	4178.56	121	2.5287%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20448596.45
5573540	5/7/1998	4490	0.94	4169.16	123	2.5705%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20402595.71
5573540	6/15/2015	4480	0.94	4159.76	124	2.5914%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20356594.96
5573540	5/10/1998	4470	0.94	4150.36	125	2.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20310594.22
5573540	6/24/1998	4450	0.94	4131.56	126	2.6332%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20218592.74
5573540	5/16/1995	4430	0.94	4112.76	127	2.6541%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20126591.25
5573540	5/6/1998	4420	0.94	4103.36	128	2.6750%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20080590.51

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/15/2004	4420	0.94	4103.36	128	2.6750%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20080590.51
5573540	5/27/2011	4410	0.94	4093.96	130	2.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20034589.77
5573540	5/31/1995	4400	0.94	4084.56	131	2.7377%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19988589.03
5573540	5/29/1996	4370	0.94	4056.36	132	2.7586%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19850586.8
5573540	6/1/2011	4360	0.94	4046.96	133	2.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19804586.06
5573540	5/23/1995	4350	0.94	4037.56	134	2.8004%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19758585.31
5573540	5/15/2009	4340	0.94	4028.16	135	2.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19712584.57
5573540	6/15/2010	4320	0.94	4009.36	136	2.8422%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19620583.09
5573540	6/23/1990	4300	0.94	3990.56	137	2.8631%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19528581.6
5573540	5/15/1995	4230	0.94	3924.76	138	2.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19206576.4
5573540	6/30/2015	4220	0.94	3915.36	139	2.9049%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19160575.66
5573540	6/18/2004	4200	0.94	3896.56	140	2.9258%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19068574.18
5573540	5/28/1996	4190	0.94	3887.16	141	2.9467%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19022573.43
5573540	6/24/1990	4140	0.94	3840.16	142	2.9676%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18792569.72
5573540	6/13/2008	4130	0.94	3830.76	143	2.9885%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18746568.98
5573540	6/2/2013	4110	0.94	3811.96	144	3.0094%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18654567.5
5573540	7/15/2015	4110	0.94	3811.96	144	3.0094%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18654567.5
5573540	5/3/2009	4090	0.94	3793.16	146	3.0512%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18562566.01
5573540	5/9/2002	4030	0.94	3736.76	147	3.0721%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18286561.56
5573540	7/1/2015	4030	0.94	3736.76	147	3.0721%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18286561.56
5573540	6/22/1998	4010	0.94	3717.96	149	3.1139%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18194560.07
5573540	5/21/2009	3960	0.94	3670.96	150	3.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17964556.36
5573540	7/14/2008	3950	0.94	3661.56	151	3.1557%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17918555.62
5573540	10/29/2009	3940	0.94	3652.16	152	3.1766%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17872554.87
5573540	6/30/2013	3930	0.94	3642.76	153	3.1975%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17826554.13
5573540	7/4/1993	3920	0.94	3633.36	154	3.2184%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17780553.39
5573540	6/25/2010	3910	0.94	3623.96	155	3.2393%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17734552.65
5573540	7/7/1993	3910	0.94	3623.96	155	3.2393%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17734552.65
5573540	7/19/2014	3900	0.94	3614.56	157	3.2811%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17688551.91
5573540	6/2/2011	3890	0.94	3605.16	158	3.3020%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17642551.16
5573540	7/11/2008	3870	0.94	3586.36	159	3.3229%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17550549.68
5573540	6/3/2013	3840	0.94	3558.16	160	3.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17412547.45

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/2/1996	3830	0.94	3548.76	161	3.3647%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17366546.71
5573540	6/16/2015	3810	0.94	3529.96	162	3.3856%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17274545.22
5573540	7/9/2015	3740	0.94	3464.16	163	3.4065%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16952540.03
5573540	5/18/2002	3720	0.94	3445.36	164	3.4274%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16860538.54
5573540	5/19/2002	3660	0.94	3388.96	165	3.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16584534.09
5573540	5/14/1995	3630	0.94	3360.76	166	3.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16446531.86
5573540	6/29/2015	3630	0.94	3360.76	166	3.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16446531.86
5573540	5/20/1990	3580	0.94	3313.76	168	3.5110%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16216528.15
5573540	6/7/2001	3530	0.94	3266.76	169	3.5319%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15986524.44
5573540	10/28/2009	3500	0.94	3238.56	170	3.5528%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15848522.21
5573540	6/4/1996	3490	0.94	3229.16	171	3.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15802521.47
5573540	6/19/2004	3490	0.94	3229.16	171	3.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15802521.47
5573540	6/25/1990	3480	0.94	3219.76	173	3.6155%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15756520.72
5573540	6/3/1996	3480	0.94	3219.76	173	3.6155%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15756520.72
5573540	9/21/2008	3480	0.94	3219.76	173	3.6155%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15756520.72
5573540	6/1/1996	3440	0.94	3182.16	176	3.6782%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15572517.75
5573540	5/11/1995	3420	0.94	3163.36	177	3.6991%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15480516.27
5573540	5/25/1998	3420	0.94	3163.36	177	3.6991%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15480516.27
5573540	5/10/2002	3420	0.94	3163.36	177	3.6991%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15480516.27
5573540	6/27/2015	3400	0.94	3144.56	180	3.7618%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15388514.79
5573540	5/31/1996	3380	0.94	3125.76	181	3.7827%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15296513.3
5573540	5/1/1994	3360	0.94	3106.96	182	3.8036%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15204511.82
5573540	5/11/2002	3350	0.94	3097.56	183	3.8245%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15158511.07
5573540	5/13/1998	3330	0.94	3078.76	184	3.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15066509.59
5573540	5/14/1998	3330	0.94	3078.76	184	3.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15066509.59
5573540	6/13/2010	3330	0.94	3078.76	184	3.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15066509.59
5573540	6/15/2011	3320	0.94	3069.36	187	3.9080%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15020508.85
5573540	6/17/2015	3320	0.94	3069.36	187	3.9080%	Fecal_coliform	58	cfu/100mL	200	283.2	4355947.565	15020508.85
5573540	5/13/1995	3310	0.94	3059.96	189	3.9498%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14974508.1
5573540	6/13/1998	3310	0.94	3059.96	189	3.9498%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14974508.1
5573540	6/28/2015	3310	0.94	3059.96	189	3.9498%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14974508.1
5573540	6/19/2015	3300	0.94	3050.56	192	4.0125%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14928507.36

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/5/1996	3280	0.94	3031.76	193	4.0334%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14836505.88
5573540	10/19/1993	3280	0.94	3031.76	193	4.0334%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14836505.88
5573540	5/2/2011	3260	0.94	3012.96	195	4.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14744504.39
5573540	6/18/2015	3260	0.94	3012.96	195	4.0752%	Fecal_coliform	21	cfu/100mL	200	283.2	1548172.961	14744504.39
5573540	5/30/1996	3250	0.94	3003.56	197	4.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14698503.65
5573540	5/4/2009	3250	0.94	3003.56	197	4.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14698503.65
5573540	7/2/2015	3250	0.94	3003.56	197	4.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14698503.65
5573540	10/27/1993	3250	0.94	3003.56	197	4.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14698503.65
5573540	6/1/2013	3240	0.94	2994.16	201	4.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14652502.91
5573540	6/27/2013	3240	0.94	2994.16	201	4.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14652502.91
5573540	7/30/2006	3230	0.94	2984.76	203	4.2424%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14606502.16
5573540	7/16/2008	3220	0.94	2975.36	204	4.2633%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14560501.42
5573540	5/18/1991	3200	0.94	2956.56	205	4.2842%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14468499.94
5573540	5/8/2002	3180	0.94	2937.76	206	4.3051%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14376498.45
5573540	7/10/2015	3160	0.94	2918.96	207	4.3260%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14284496.97
5573540	10/27/2009	3160	0.94	2918.96	207	4.3260%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14284496.97
5573540	6/14/1998	3140	0.94	2900.16	209	4.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14192495.48
5573540	6/21/2009	3140	0.94	2900.16	209	4.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14192495.48
5573540	5/22/2009	3120	0.94	2881.36	211	4.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14100494
5573540	6/4/2013	3120	0.94	2881.36	211	4.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14100494
5573540	6/25/1998	3110	0.94	2871.96	213	4.4514%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14054493.26
5573540	6/1/1995	3100	0.94	2862.56	214	4.4723%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14008492.51
5573540	6/14/2008	3100	0.94	2862.56	214	4.4723%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14008492.51
5573540	7/3/1993	3090	0.94	2853.16	216	4.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13962491.77
5573540	5/12/1995	3080	0.94	2843.76	217	4.5350%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13916491.03
5573540	5/20/2002	3080	0.94	2843.76	217	4.5350%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13916491.03
5573540	6/26/2010	3060	0.94	2824.96	219	4.5768%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13824489.54
5573540	5/6/2009	3050	0.94	2815.56	220	4.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13778488.8
5573540	5/21/1990	3040	0.94	2806.16	221	4.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13732488.06
5573540	5/8/1994	3040	0.94	2806.16	221	4.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13732488.06
5573540	10/14/1990	3040	0.94	2806.16	221	4.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13732488.06
5573540	5/9/1994	3030	0.94	2796.76	224	4.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13686487.32

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/10/1995	3030	0.94	2796.76	224	4.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13686487.32
5573540	7/14/2014	3020	0.94	2787.36	226	4.7231%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13640486.57
5573540	6/5/1996	3000	0.94	2768.56	227	4.7440%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13548485.09
5573540	5/1/2002	2990	0.94	2759.16	228	4.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13502484.35
5573540	5/26/1998	2980	0.94	2749.76	229	4.7858%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13456483.6
5573540	7/28/1992	2940	0.94	2712.16	230	4.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13272480.63
5573540	5/19/1991	2930	0.94	2702.76	231	4.8276%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13226479.89
5573540	7/10/2008	2920	0.94	2693.36	232	4.8485%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13180479.15
5573540	5/2/1994	2910	0.94	2683.96	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13134478.41
5573540	5/10/2003	2910	0.94	2683.96	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13134478.41
5573540	5/5/2009	2910	0.94	2683.96	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13134478.41
5573540	5/28/2013	2910	0.94	2683.96	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13134478.41
5573540	6/10/1996	2910	0.94	2683.96	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13134478.41
5573540	9/28/1993	2910	0.94	2683.96	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13134478.41
5573540	5/26/1996	2900	0.94	2674.56	239	4.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13088477.67
5573540	6/14/2002	2900	0.94	2674.56	239	4.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13088477.67
5573540	7/8/1993	2900	0.94	2674.56	239	4.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13088477.67
5573540	5/15/2004	2890	0.94	2665.16	242	5.0575%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13042476.92
5573540	7/11/2015	2890	0.94	2665.16	242	5.0575%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13042476.92
5573540	6/27/1990	2880	0.94	2655.76	244	5.0993%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12996476.18
5573540	6/6/1996	2870	0.94	2646.36	245	5.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12950475.44
5573540	6/14/2003	2870	0.94	2646.36	245	5.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12950475.44
5573540	6/26/1998	2860	0.94	2636.96	247	5.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12904474.7
5573540	6/5/2013	2860	0.94	2636.96	247	5.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12904474.7
5573540	6/13/2002	2850	0.94	2627.56	249	5.2038%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12858473.95
5573540	6/20/2015	2850	0.94	2627.56	249	5.2038%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12858473.95
5573540	7/30/1993	2840	0.94	2618.16	251	5.2456%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12812473.21
5573540	5/2/1998	2830	0.94	2608.76	252	5.2665%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12766472.47
5573540	7/16/2015	2830	0.94	2608.76	252	5.2665%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12766472.47
5573540	6/26/1990	2820	0.94	2599.36	254	5.3083%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12720471.73
5573540	6/24/2014	2820	0.94	2599.36	254	5.3083%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12720471.73
5573540	7/20/2014	2820	0.94	2599.36	254	5.3083%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12720471.73

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/21/1991	2810	0.94	2589.96	257	5.3710%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12674470.98
5573540	6/27/2010	2810	0.94	2589.96	257	5.3710%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12674470.98
5573540	7/13/2014	2810	0.94	2589.96	257	5.3710%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12674470.98
5573540	10/24/1993	2810	0.94	2589.96	257	5.3710%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12674470.98
5573540	10/29/1993	2810	0.94	2589.96	257	5.3710%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12674470.98
5573540	5/16/1996	2800	0.94	2580.56	262	5.4754%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12628470.24
5573540	5/17/1991	2790	0.94	2571.16	263	5.4963%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12582469.5
5573540	6/12/1996	2780	0.94	2561.76	264	5.5172%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12536468.76
5573540	5/4/1996	2770	0.94	2552.36	265	5.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12490468.01
5573540	6/4/1995	2770	0.94	2552.36	265	5.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12490468.01
5573540	6/3/2011	2770	0.94	2552.36	265	5.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12490468.01
5573540	6/20/2004	2760	0.94	2542.96	268	5.6008%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12444467.27
5573540	5/3/2011	2750	0.94	2533.56	269	5.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12398466.53
5573540	6/22/2009	2750	0.94	2533.56	269	5.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12398466.53
5573540	6/26/2013	2750	0.94	2533.56	269	5.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12398466.53
5573540	6/7/1996	2740	0.94	2524.16	272	5.6844%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12352465.79
5573540	6/6/2004	2740	0.94	2524.16	272	5.6844%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12352465.79
5573540	5/17/1996	2730	0.94	2514.76	274	5.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12306465.04
5573540	6/15/2002	2730	0.94	2514.76	274	5.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12306465.04
5573540	6/27/1998	2720	0.94	2505.36	276	5.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12260464.3
5573540	6/12/2002	2720	0.94	2505.36	276	5.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12260464.3
5573540	7/1/2013	2720	0.94	2505.36	276	5.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12260464.3
5573540	10/16/1990	2720	0.94	2505.36	276	5.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12260464.3
5573540	10/26/2009	2720	0.94	2505.36	276	5.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12260464.3
5573540	6/4/2014	2710	0.94	2495.96	281	5.8725%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12214463.56
5573540	9/29/1993	2700	0.94	2486.56	282	5.8934%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12168462.82
5573540	10/11/1993	2700	0.94	2486.56	282	5.8934%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12168462.82
5573540	5/2/2002	2690	0.94	2477.16	284	5.9352%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12122462.07
5573540	10/13/1990	2690	0.94	2477.16	284	5.9352%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12122462.07
5573540	6/14/1999	2670	0.94	2458.36	286	5.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12030460.59
5573540	6/11/1996	2640	0.94	2430.16	287	5.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11892458.36
5573540	6/6/2013	2630	0.94	2420.76	288	6.0188%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11846457.62

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/15/1990	2630	0.94	2420.76	288	6.0188%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11846457.62
5573540	10/24/2009	2620	0.94	2411.36	290	6.0606%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11800456.88
5573540	5/15/1998	2610	0.94	2401.96	291	6.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11754456.14
5573540	7/27/2006	2600	0.94	2392.56	292	6.1024%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11708455.39
5573540	5/3/2002	2590	0.94	2383.16	293	6.1233%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11662454.65
5573540	5/16/2008	2580	0.94	2373.76	294	6.1442%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11616453.91
5573540	5/27/1998	2570	0.94	2364.36	295	6.1651%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11570453.17
5573540	6/15/2003	2570	0.94	2364.36	295	6.1651%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11570453.17
5573540	6/28/2011	2570	0.94	2364.36	295	6.1651%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11570453.17
5573540	6/26/2015	2570	0.94	2364.36	295	6.1651%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11570453.17
5573540	6/16/2002	2560	0.94	2354.96	299	6.2487%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11524452.42
5573540	5/15/1990	2550	0.94	2345.56	300	6.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11478451.68
5573540	10/10/1990	2550	0.94	2345.56	300	6.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11478451.68
5573540	10/12/1990	2550	0.94	2345.56	300	6.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11478451.68
5573540	5/20/1991	2540	0.94	2336.16	303	6.3323%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11432450.94
5573540	6/12/1998	2540	0.94	2336.16	303	6.3323%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11432450.94
5573540	6/16/2011	2540	0.94	2336.16	303	6.3323%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11432450.94
5573540	5/1/1998	2530	0.94	2326.76	306	6.3950%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11386450.2
5573540	6/13/2004	2520	0.94	2317.36	307	6.4159%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11340449.45
5573540	7/9/2008	2520	0.94	2317.36	307	6.4159%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11340449.45
5573540	5/18/1996	2510	0.94	2307.96	309	6.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11294448.71
5573540	6/18/2011	2510	0.94	2307.96	309	6.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11294448.71
5573540	5/22/1990	2500	0.94	2298.56	311	6.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11248447.97
5573540	5/19/2008	2500	0.94	2298.56	311	6.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11248447.97
5573540	9/8/1993	2500	0.94	2298.56	311	6.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11248447.97
5573540	6/25/2014	2480	0.94	2279.76	314	6.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11156446.48
5573540	9/22/2008	2480	0.94	2279.76	314	6.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11156446.48
5573540	9/27/1993	2470	0.94	2270.36	316	6.6040%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11110445.74
5573540	5/24/1998	2440	0.94	2242.16	317	6.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10972443.51
5573540	5/4/2002	2440	0.94	2242.16	317	6.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10972443.51
5573540	6/21/2015	2440	0.94	2242.16	317	6.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10972443.51
5573540	7/29/1993	2440	0.94	2242.16	317	6.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10972443.51

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/14/2004	2430	0.94	2232.76	321	6.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10926442.77
5573540	6/13/1995	2420	0.94	2223.36	322	6.7294%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10880442.03
5573540	5/4/2011	2410	0.94	2213.96	323	6.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10834441.29
5573540	7/3/2015	2410	0.94	2213.96	323	6.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10834441.29
5573540	10/12/1993	2410	0.94	2213.96	323	6.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10834441.29
5573540	10/25/2009	2410	0.94	2213.96	323	6.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10834441.29
5573540	5/29/2013	2400	0.94	2204.56	327	6.8339%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10788440.55
5573540	6/22/2015	2390	0.94	2195.16	328	6.8548%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10742439.8
5573540	5/14/1990	2380	0.94	2185.76	329	6.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10696439.06
5573540	7/6/2014	2380	0.94	2185.76	329	6.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10696439.06
5573540	9/30/1993	2380	0.94	2185.76	329	6.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10696439.06
5573540	6/2/1995	2370	0.94	2176.36	332	6.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10650438.32
5573540	5/10/1994	2360	0.94	2166.96	333	6.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10604437.58
5573540	5/21/2002	2360	0.94	2166.96	333	6.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10604437.58
5573540	6/28/1998	2360	0.94	2166.96	333	6.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10604437.58
5573540	6/19/2009	2360	0.94	2166.96	333	6.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10604437.58
5573540	7/5/2000	2360	0.94	2166.96	333	6.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10604437.58
5573540	5/22/1991	2350	0.94	2157.56	338	7.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10558436.83
5573540	6/28/2010	2350	0.94	2157.56	338	7.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10558436.83
5573540	7/16/1993	2350	0.94	2157.56	338	7.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10558436.83
5573540	10/28/1993	2350	0.94	2157.56	338	7.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10558436.83
5573540	9/18/1993	2340	0.94	2148.16	342	7.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10512436.09
5573540	10/18/1993	2340	0.94	2148.16	342	7.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10512436.09
5573540	6/13/1996	2330	0.94	2138.76	344	7.1891%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10466435.35
5573540	7/29/1992	2330	0.94	2138.76	344	7.1891%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10466435.35
5573540	10/13/1993	2320	0.94	2129.36	346	7.2309%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10420434.61
5573540	5/23/1991	2310	0.94	2119.96	347	7.2518%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10374433.86
5573540	5/24/1991	2310	0.94	2119.96	347	7.2518%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10374433.86
5573540	6/19/1990	2310	0.94	2119.96	347	7.2518%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10374433.86
5573540	8/29/2004	2310	0.94	2119.96	347	7.2518%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10374433.86
5573540	5/7/2009	2300	0.94	2110.56	351	7.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10328433.12
5573540	5/23/2009	2300	0.94	2110.56	351	7.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10328433.12

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/3/1995	2290	0.94	2101.16	353	7.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10282432.38
5573540	7/13/2006	2290	0.94	2101.16	353	7.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10282432.38
5573540	8/28/2004	2290	0.94	2101.16	353	7.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10282432.38
5573540	9/13/2014	2290	0.94	2101.16	353	7.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10282432.38
5573540	5/10/2013	2280	0.94	2091.76	357	7.4608%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10236431.64
5573540	9/19/1993	2280	0.94	2091.76	357	7.4608%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10236431.64
5573540	9/24/1993	2280	0.94	2091.76	357	7.4608%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10236431.64
5573540	10/11/1990	2280	0.94	2091.76	357	7.4608%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10236431.64
5573540	7/15/2003	2270	0.94	2082.36	361	7.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10190430.89
5573540	9/17/1993	2270	0.94	2082.36	361	7.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10190430.89
5573540	9/16/1993	2260	0.94	2072.96	363	7.5862%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10144430.15
5573540	5/1/1996	2250	0.94	2063.56	364	7.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10098429.41
5573540	6/8/1996	2250	0.94	2063.56	364	7.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10098429.41
5573540	6/5/2014	2250	0.94	2063.56	364	7.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10098429.41
5573540	8/19/2006	2250	0.94	2063.56	364	7.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10098429.41
5573540	7/3/2014	2240	0.94	2054.16	368	7.6907%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10052428.67
5573540	5/13/1990	2230	0.94	2044.76	369	7.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10006427.92
5573540	6/12/2014	2230	0.94	2044.76	369	7.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10006427.92
5573540	9/7/1993	2230	0.94	2044.76	369	7.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10006427.92
5573540	10/1/1993	2230	0.94	2044.76	369	7.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10006427.92
5573540	10/10/1993	2230	0.94	2044.76	369	7.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10006427.92
5573540	5/25/1991	2210	0.94	2025.96	374	7.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9914426.44
5573540	5/3/1994	2210	0.94	2025.96	374	7.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9914426.44
5573540	5/11/2003	2210	0.94	2025.96	374	7.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9914426.44
5573540	5/6/2013	2210	0.94	2025.96	374	7.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9914426.44
5573540	6/7/2013	2210	0.94	2025.96	374	7.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9914426.44
5573540	5/23/1990	2200	0.94	2016.56	379	7.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9868425.697
5573540	6/15/1990	2200	0.94	2016.56	379	7.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9868425.697
5573540	6/30/1990	2200	0.94	2016.56	379	7.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9868425.697
5573540	6/13/1999	2190	0.94	2007.16	382	7.9833%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9822424.955
5573540	5/15/2008	2180	0.94	1997.76	383	8.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9776424.212
5573540	7/5/2014	2180	0.94	1997.76	383	8.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9776424.212

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/17/2002	2170	0.94	1988.36	385	8.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9730423.47
5573540	6/23/2009	2170	0.94	1988.36	385	8.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9730423.47
5573540	7/7/2014	2170	0.94	1988.36	385	8.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9730423.47
5573540	10/9/1990	2170	0.94	1988.36	385	8.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9730423.47
5573540	5/9/1995	2160	0.94	1978.96	389	8.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9684422.728
5573540	5/22/2002	2160	0.94	1978.96	389	8.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9684422.728
5573540	10/14/1993	2160	0.94	1978.96	389	8.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9684422.728
5573540	5/18/2008	2150	0.94	1969.56	392	8.1923%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9638421.985
5573540	6/8/2001	2150	0.94	1969.56	392	8.1923%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9638421.985
5573540	6/12/2010	2150	0.94	1969.56	392	8.1923%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9638421.985
5573540	7/16/2003	2150	0.94	1969.56	392	8.1923%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9638421.985
5573540	5/11/2013	2140	0.94	1960.16	396	8.2759%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9592421.243
5573540	6/19/2011	2140	0.94	1960.16	396	8.2759%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9592421.243
5573540	5/12/2008	2130	0.94	1950.76	398	8.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9546420.5
5573540	6/5/2004	2130	0.94	1950.76	398	8.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9546420.5
5573540	6/25/2015	2130	0.94	1950.76	398	8.3177%	Fecal_coliform	4650	cfu/100mL	200	283.2	221954276.6	9546420.5
5573540	7/30/1992	2130	0.94	1950.76	398	8.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9546420.5
5573540	6/5/1999	2120	0.94	1941.36	402	8.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9500419.758
5573540	7/9/1992	2120	0.94	1941.36	402	8.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9500419.758
5573540	6/15/1999	2110	0.94	1931.96	404	8.4431%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9454419.016
5573540	9/12/1993	2110	0.94	1931.96	404	8.4431%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9454419.016
5573540	5/5/2013	2100	0.94	1922.56	406	8.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9408418.273
5573540	6/28/1990	2100	0.94	1922.56	406	8.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9408418.273
5573540	7/28/1993	2100	0.94	1922.56	406	8.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9408418.273
5573540	5/19/1996	2090	0.94	1913.16	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9362417.531
5573540	5/16/2004	2090	0.94	1913.16	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9362417.531
5573540	6/30/1998	2090	0.94	1913.16	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9362417.531
5573540	6/11/2011	2090	0.94	1913.16	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9362417.531
5573540	6/13/2014	2090	0.94	1913.16	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9362417.531
5573540	6/23/2015	2090	0.94	1913.16	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9362417.531
5573540	7/14/2003	2090	0.94	1913.16	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9362417.531
5573540	7/4/2014	2090	0.94	1913.16	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9362417.531

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/2/1993	2090	0.94	1913.16	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9362417.531
5573540	5/17/2008	2080	0.94	1903.76	418	8.7356%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9316416.788
5573540	6/30/1993	2080	0.94	1903.76	418	8.7356%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9316416.788
5573540	10/17/1993	2070	0.94	1894.36	420	8.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9270416.046
5573540	5/7/1994	2060	0.94	1884.96	421	8.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9224415.304
5573540	7/25/2010	2060	0.94	1884.96	421	8.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9224415.304
5573540	5/12/1994	2050	0.94	1875.56	423	8.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9178414.561
5573540	5/14/2008	2050	0.94	1875.56	423	8.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9178414.561
5573540	6/6/1999	2050	0.94	1875.56	423	8.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9178414.561
5573540	6/12/2015	2050	0.94	1875.56	423	8.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9178414.561
5573540	5/27/1990	2040	0.94	1866.16	427	8.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9132413.819
5573540	5/28/2004	2040	0.94	1866.16	427	8.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9132413.819
5573540	6/4/2011	2040	0.94	1866.16	427	8.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9132413.819
5573540	5/5/1993	2030	0.94	1856.76	430	8.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9086413.076
5573540	5/27/2004	2030	0.94	1856.76	430	8.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9086413.076
5573540	6/29/1990	2030	0.94	1856.76	430	8.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9086413.076
5573540	6/14/2004	2030	0.94	1856.76	430	8.9864%	Fecal_coliform	60	cfu/100mL	200	283.2	2725923.923	9086413.076
5573540	6/11/2014	2030	0.94	1856.76	430	8.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9086413.076
5573540	10/23/2009	2030	0.94	1856.76	430	8.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9086413.076
5573540	5/20/2004	2020	0.94	1847.36	436	9.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9040412.334
5573540	5/13/2009	2020	0.94	1847.36	436	9.1118%	Fecal_coliform	4	cfu/100mL	200	283.2	180808.2467	9040412.334
5573540	9/15/1993	2020	0.94	1847.36	436	9.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9040412.334
5573540	7/5/1990	2010	0.94	1837.96	439	9.1745%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8994411.592
5573540	7/31/1992	2010	0.94	1837.96	439	9.1745%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8994411.592
5573540	7/27/1993	2010	0.94	1837.96	439	9.1745%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8994411.592
5573540	7/2/2014	2010	0.94	1837.96	439	9.1745%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8994411.592
5573540	6/11/2010	2000	0.94	1828.56	443	9.2581%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8948410.849
5573540	5/11/1994	1990	0.94	1819.16	444	9.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8902410.107
5573540	7/2/1993	1990	0.94	1819.16	444	9.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8902410.107
5573540	9/26/1993	1990	0.94	1819.16	444	9.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8902410.107
5573540	10/25/2001	1990	0.94	1819.16	444	9.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8902410.107
5573540	6/16/1990	1980	0.94	1809.76	448	9.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8856409.364

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/20/2010	1970	0.94	1800.36	449	9.3835%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8810408.622
5573540	5/25/1990	1960	0.94	1790.96	450	9.4044%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8764407.88
5573540	5/29/2004	1960	0.94	1790.96	450	9.4044%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8764407.88
5573540	5/19/2010	1950	0.94	1781.56	452	9.4462%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8718407.137
5573540	5/9/1991	1940	0.94	1772.16	453	9.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8672406.395
5573540	6/1/2008	1940	0.94	1772.16	453	9.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8672406.395
5573540	9/25/1993	1940	0.94	1772.16	453	9.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8672406.395
5573540	5/5/1994	1930	0.94	1762.76	456	9.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8626405.652
5573540	5/21/2004	1930	0.94	1762.76	456	9.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8626405.652
5573540	6/7/2004	1930	0.94	1762.76	456	9.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8626405.652
5573540	7/6/2000	1930	0.94	1762.76	456	9.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8626405.652
5573540	9/5/1993	1930	0.94	1762.76	456	9.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8626405.652
5573540	5/1/1993	1920	0.94	1753.36	461	9.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8580404.91
5573540	5/2/2007	1920	0.94	1753.36	461	9.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8580404.91
5573540	6/15/2008	1920	0.94	1753.36	461	9.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8580404.91
5573540	5/21/2010	1910	0.94	1743.96	464	9.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8534404.168
5573540	9/11/1993	1910	0.94	1743.96	464	9.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8534404.168
5573540	9/23/1993	1910	0.94	1743.96	464	9.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8534404.168
5573540	5/1/2007	1900	0.94	1734.56	467	9.7597%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8488403.425
5573540	7/8/2008	1900	0.94	1734.56	467	9.7597%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8488403.425
5573540	5/28/1990	1890	0.94	1725.16	469	9.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8442402.683
5573540	5/30/2004	1890	0.94	1725.16	469	9.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8442402.683
5573540	7/10/1992	1890	0.94	1725.16	469	9.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8442402.683
5573540	7/13/1992	1890	0.94	1725.16	469	9.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8442402.683
5573540	5/20/1996	1880	0.94	1715.76	473	9.8851%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8396401.94
5573540	7/2/2013	1880	0.94	1715.76	473	9.8851%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8396401.94
5573540	5/26/1990	1870	0.94	1706.36	475	9.9269%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8350401.198
5573540	5/11/1991	1850	0.94	1687.56	476	9.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8258399.713
5573540	5/13/2008	1850	0.94	1687.56	476	9.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8258399.713
5573540	6/14/1995	1850	0.94	1687.56	476	9.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8258399.713
5573540	7/12/1992	1850	0.94	1687.56	476	9.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8258399.713
5573540	5/23/2002	1840	0.94	1678.16	480	10.0313%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8212398.971

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/19/2004	1840	0.94	1678.16	480	10.0313%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8212398.971
5573540	7/25/1990	1840	0.94	1678.16	480	10.0313%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8212398.971
5573540	10/26/1993	1840	0.94	1678.16	480	10.0313%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8212398.971
5573540	6/18/2002	1830	0.94	1668.76	484	10.1149%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8166398.228
5573540	7/3/1990	1830	0.94	1668.76	484	10.1149%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8166398.228
5573540	7/14/1992	1830	0.94	1668.76	484	10.1149%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8166398.228
5573540	7/31/1993	1830	0.94	1668.76	484	10.1149%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8166398.228
5573540	5/2/1993	1820	0.94	1659.36	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8120397.486
5573540	5/6/1994	1820	0.94	1659.36	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8120397.486
5573540	5/22/2010	1820	0.94	1659.36	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8120397.486
5573540	5/7/2013	1820	0.94	1659.36	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8120397.486
5573540	6/10/2010	1820	0.94	1659.36	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8120397.486
5573540	7/1/1990	1820	0.94	1659.36	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8120397.486
5573540	6/20/1993	1810	0.94	1649.96	494	10.3239%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8074396.744
5573540	7/4/2015	1810	0.94	1649.96	494	10.3239%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8074396.744
5573540	9/12/2014	1810	0.94	1649.96	494	10.3239%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8074396.744
5573540	5/4/2013	1800	0.94	1640.56	497	10.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8028396.001
5573540	6/27/2011	1800	0.94	1640.56	497	10.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8028396.001
5573540	6/10/2014	1800	0.94	1640.56	497	10.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8028396.001
5573540	8/27/2004	1800	0.94	1640.56	497	10.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8028396.001
5573540	6/13/2003	1790	0.94	1631.16	501	10.4702%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7982395.259
5573540	6/9/2014	1790	0.94	1631.16	501	10.4702%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7982395.259
5573540	10/17/1990	1790	0.94	1631.16	501	10.4702%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7982395.259
5573540	10/3/1993	1790	0.94	1631.16	501	10.4702%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7982395.259
5573540	5/24/1990	1780	0.94	1621.76	505	10.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7936394.516
5573540	5/16/2014	1780	0.94	1621.76	505	10.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7936394.516
5573540	6/8/2014	1780	0.94	1621.76	505	10.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7936394.516
5573540	7/17/2015	1780	0.94	1621.76	505	10.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7936394.516
5573540	10/4/2014	1780	0.94	1621.76	505	10.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7936394.516
5573540	5/2/1996	1770	0.94	1612.36	510	10.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7890393.774
5573540	5/5/2002	1770	0.94	1612.36	510	10.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7890393.774
5573540	6/8/1995	1770	0.94	1612.36	510	10.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7890393.774

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/4/2004	1770	0.94	1612.36	510	10.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7890393.774
5573540	9/20/1993	1770	0.94	1612.36	510	10.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7890393.774
5573540	5/31/2004	1760	0.94	1602.96	515	10.7628%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7844393.032
5573540	7/9/1993	1760	0.94	1602.96	515	10.7628%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7844393.032
5573540	8/1/1992	1760	0.94	1602.96	515	10.7628%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7844393.032
5573540	5/17/2014	1750	0.94	1593.56	518	10.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7798392.289
5573540	6/12/2004	1750	0.94	1593.56	518	10.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7798392.289
5573540	7/1/1998	1750	0.94	1593.56	518	10.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7798392.289
5573540	7/4/1998	1750	0.94	1593.56	518	10.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7798392.289
5573540	5/26/2004	1740	0.94	1584.16	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7752391.547
5573540	6/19/2002	1740	0.94	1584.16	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7752391.547
5573540	7/6/1990	1740	0.94	1584.16	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7752391.547
5573540	7/1/1993	1740	0.94	1584.16	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7752391.547
5573540	7/17/2008	1740	0.94	1584.16	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7752391.547
5573540	10/31/2001	1740	0.94	1584.16	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7752391.547
5573540	5/10/1991	1730	0.94	1574.76	528	11.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7706390.804
5573540	5/4/1994	1730	0.94	1574.76	528	11.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7706390.804
5573540	5/29/2000	1730	0.94	1574.76	528	11.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7706390.804
5573540	6/21/2004	1730	0.94	1574.76	528	11.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7706390.804
5573540	6/12/1995	1720	0.94	1565.36	532	11.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7660390.062
5573540	6/9/1996	1720	0.94	1565.36	532	11.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7660390.062
5573540	6/24/2015	1720	0.94	1565.36	532	11.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7660390.062
5573540	9/14/2014	1720	0.94	1565.36	532	11.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7660390.062
5573540	5/8/2009	1710	0.94	1555.96	536	11.2017%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7614389.32
5573540	6/2/2008	1710	0.94	1555.96	536	11.2017%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7614389.32
5573540	6/9/2011	1710	0.94	1555.96	536	11.2017%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7614389.32
5573540	5/18/2014	1700	0.94	1546.56	539	11.2644%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7568388.577
5573540	5/11/2008	1690	0.94	1537.16	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7522387.835
5573540	5/30/2013	1690	0.94	1537.16	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7522387.835
5573540	5/15/2014	1690	0.94	1537.16	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7522387.835
5573540	6/5/1995	1690	0.94	1537.16	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7522387.835
5573540	6/2/1999	1690	0.94	1537.16	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7522387.835

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/17/2003	1690	0.94	1537.16	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7522387.835
5573540	9/16/2014	1690	0.94	1537.16	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7522387.835
5573540	10/15/2014	1690	0.94	1537.16	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7522387.835
5573540	5/22/2004	1680	0.94	1527.76	548	11.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7476387.092
5573540	6/9/1993	1680	0.94	1527.76	548	11.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7476387.092
5573540	6/16/2003	1680	0.94	1527.76	548	11.4525%	Fecal_coliform	50	cfu/100mL	200	283.2	1869096.773	7476387.092
5573540	6/1/2006	1680	0.94	1527.76	548	11.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7476387.092
5573540	5/5/2011	1670	0.94	1518.36	552	11.5361%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7430386.35
5573540	6/8/1993	1670	0.94	1518.36	552	11.5361%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7430386.35
5573540	10/16/2014	1670	0.94	1518.36	552	11.5361%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7430386.35
5573540	5/12/2013	1660	0.94	1508.96	555	11.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7384385.608
5573540	5/31/2013	1660	0.94	1508.96	555	11.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7384385.608
5573540	5/11/2015	1660	0.94	1508.96	555	11.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7384385.608
5573540	10/25/1993	1650	0.94	1499.56	558	11.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7338384.865
5573540	5/16/1991	1640	0.94	1490.16	559	11.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7292384.123
5573540	5/3/2013	1640	0.94	1490.16	559	11.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7292384.123
5573540	9/9/1993	1640	0.94	1490.16	559	11.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7292384.123
5573540	6/14/2014	1630	0.94	1480.76	562	11.7450%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7246383.38
5573540	10/3/2014	1630	0.94	1480.76	562	11.7450%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7246383.38
5573540	5/13/2003	1610	0.94	1461.96	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7154381.896
5573540	5/20/2008	1610	0.94	1461.96	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7154381.896
5573540	6/29/2010	1610	0.94	1461.96	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7154381.896
5573540	6/5/2011	1610	0.94	1461.96	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7154381.896
5573540	7/22/2008	1610	0.94	1461.96	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7154381.896
5573540	8/27/2002	1610	0.94	1461.96	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7154381.896
5573540	5/15/2003	1600	0.94	1452.56	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7108381.153
5573540	5/18/2004	1600	0.94	1452.56	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7108381.153
5573540	6/15/1995	1600	0.94	1452.56	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7108381.153
5573540	7/17/1993	1600	0.94	1452.56	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7108381.153
5573540	9/5/2008	1600	0.94	1452.56	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7108381.153
5573540	10/5/2014	1600	0.94	1452.56	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7108381.153
5573540	5/12/1991	1590	0.94	1443.16	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7062380.411

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/9/2009	1590	0.94	1443.16	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7062380.411
5573540	5/23/2010	1590	0.94	1443.16	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7062380.411
5573540	6/10/1993	1590	0.94	1443.16	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7062380.411
5573540	6/3/2004	1590	0.94	1443.16	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7062380.411
5573540	7/22/1990	1590	0.94	1443.16	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7062380.411
5573540	10/16/1993	1590	0.94	1443.16	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7062380.411
5573540	5/29/1990	1580	0.94	1433.76	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7016379.668
5573540	5/24/2009	1580	0.94	1433.76	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7016379.668
5573540	6/29/1998	1580	0.94	1433.76	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7016379.668
5573540	6/16/1999	1580	0.94	1433.76	583	12.1839%	Fecal_coliform	80	cfu/100mL	200	283.2	2806551.867	7016379.668
5573540	7/11/1992	1580	0.94	1433.76	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7016379.668
5573540	7/15/1993	1580	0.94	1433.76	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7016379.668
5573540	7/31/2006	1580	0.94	1433.76	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7016379.668
5573540	9/6/1993	1580	0.94	1433.76	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7016379.668
5573540	10/31/2004	1580	0.94	1433.76	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7016379.668
5573540	6/11/1998	1570	0.94	1424.36	592	12.3720%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6970378.926
5573540	7/21/2014	1570	0.94	1424.36	592	12.3720%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6970378.926
5573540	7/4/1990	1560	0.94	1414.96	594	12.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6924378.184
5573540	5/9/2013	1550	0.94	1405.56	595	12.4347%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6878377.441
5573540	10/15/1993	1550	0.94	1405.56	595	12.4347%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6878377.441
5573540	5/30/1990	1540	0.94	1396.16	597	12.4765%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6832376.699
5573540	5/6/1996	1540	0.94	1396.16	597	12.4765%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6832376.699
5573540	6/6/2011	1540	0.94	1396.16	597	12.4765%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6832376.699
5573540	6/24/2000	1530	0.94	1386.76	600	12.5392%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6786375.956
5573540	7/26/1993	1530	0.94	1386.76	600	12.5392%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6786375.956
5573540	9/10/1993	1530	0.94	1386.76	600	12.5392%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6786375.956
5573540	10/14/2014	1530	0.94	1386.76	600	12.5392%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6786375.956
5573540	5/28/2000	1520	0.94	1377.36	604	12.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6740375.214
5573540	6/14/1996	1520	0.94	1377.36	604	12.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6740375.214
5573540	6/26/2000	1520	0.94	1377.36	604	12.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6740375.214
5573540	10/18/1990	1520	0.94	1377.36	604	12.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6740375.214
5573540	5/18/2010	1510	0.94	1367.96	608	12.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6694374.472

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/29/2006	1510	0.94	1367.96	608	12.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6694374.472
5573540	10/18/2014	1510	0.94	1367.96	608	12.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6694374.472
5573540	5/21/2008	1500	0.94	1358.56	611	12.7691%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6648373.729
5573540	6/17/1990	1500	0.94	1358.56	611	12.7691%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6648373.729
5573540	7/2/1990	1500	0.94	1358.56	611	12.7691%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6648373.729
5573540	8/26/2002	1500	0.94	1358.56	611	12.7691%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6648373.729
5573540	10/9/1993	1500	0.94	1358.56	611	12.7691%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6648373.729
5573540	5/1/2013	1490	0.94	1349.16	616	12.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6602372.987
5573540	6/14/1990	1490	0.94	1349.16	616	12.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6602372.987
5573540	6/23/2000	1490	0.94	1349.16	616	12.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6602372.987
5573540	6/26/2014	1490	0.94	1349.16	616	12.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6602372.987
5573540	7/8/1998	1490	0.94	1349.16	616	12.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6602372.987
5573540	5/12/2015	1480	0.94	1339.76	621	12.9781%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6556372.244
5573540	7/2/1998	1480	0.94	1339.76	621	12.9781%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6556372.244
5573540	10/17/2014	1480	0.94	1339.76	621	12.9781%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6556372.244
5573540	5/23/1998	1470	0.94	1330.36	624	13.0408%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6510371.502
5573540	6/14/2005	1460	0.94	1320.96	625	13.0617%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6464370.76
5573540	10/6/2014	1460	0.94	1320.96	625	13.0617%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6464370.76
5573540	5/25/2009	1450	0.94	1311.56	627	13.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6418370.017
5573540	6/11/1990	1450	0.94	1311.56	627	13.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6418370.017
5573540	7/25/1992	1450	0.94	1311.56	627	13.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6418370.017
5573540	8/2/1992	1450	0.94	1311.56	627	13.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6418370.017
5573540	5/6/1991	1440	0.94	1302.16	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6372369.275
5573540	5/12/2003	1440	0.94	1302.16	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6372369.275
5573540	5/13/2010	1440	0.94	1302.16	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6372369.275
5573540	6/25/2000	1440	0.94	1302.16	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6372369.275
5573540	6/1/2015	1440	0.94	1302.16	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6372369.275
5573540	7/23/1990	1440	0.94	1302.16	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6372369.275
5573540	7/10/1993	1440	0.94	1302.16	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6372369.275
5573540	7/13/2003	1440	0.94	1302.16	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6372369.275
5573540	7/8/2014	1440	0.94	1302.16	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6372369.275
5573540	5/16/1998	1430	0.94	1292.76	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6326368.532

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/10/2009	1430	0.94	1292.76	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6326368.532
5573540	5/24/2010	1430	0.94	1292.76	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6326368.532
5573540	6/7/1993	1430	0.94	1292.76	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6326368.532
5573540	6/11/1995	1430	0.94	1292.76	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6326368.532
5573540	8/25/2002	1430	0.94	1292.76	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6326368.532
5573540	5/19/2014	1420	0.94	1283.36	646	13.5005%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6280367.79
5573540	6/24/2009	1420	0.94	1283.36	646	13.5005%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6280367.79
5573540	6/11/2015	1420	0.94	1283.36	646	13.5005%	Fecal_coliform	20	cfu/100mL	200	283.2	628036.779	6280367.79
5573540	7/24/2008	1420	0.94	1283.36	646	13.5005%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6280367.79
5573540	6/9/2001	1410	0.94	1273.96	650	13.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6234367.048
5573540	7/26/1990	1410	0.94	1273.96	650	13.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6234367.048
5573540	10/19/2014	1410	0.94	1273.96	650	13.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6234367.048
5573540	5/24/2002	1400	0.94	1264.56	653	13.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6188366.305
5573540	6/3/1999	1400	0.94	1264.56	653	13.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6188366.305
5573540	6/10/2001	1400	0.94	1264.56	653	13.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6188366.305
5573540	6/18/2009	1400	0.94	1264.56	653	13.6468%	Fecal_coliform	30	cfu/100mL	200	283.2	928254.9458	6188366.305
5573540	6/2/2015	1400	0.94	1264.56	653	13.6468%	Fecal_coliform	658	cfu/100mL	200	283.2	20359725.14	6188366.305
5573540	9/4/1993	1400	0.94	1264.56	653	13.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6188366.305
5573540	5/16/2011	1390	0.94	1255.16	659	13.7722%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6142365.563
5573540	6/11/2004	1390	0.94	1255.16	659	13.7722%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6142365.563
5573540	5/12/1990	1380	0.94	1245.76	661	13.8140%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6096364.82
5573540	5/8/1993	1380	0.94	1245.76	661	13.8140%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6096364.82
5573540	6/27/2014	1380	0.94	1245.76	661	13.8140%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6096364.82
5573540	7/9/1998	1380	0.94	1245.76	661	13.8140%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6096364.82
5573540	5/23/2004	1370	0.94	1236.36	665	13.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6050364.078
5573540	5/3/2007	1370	0.94	1236.36	665	13.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6050364.078
5573540	6/7/1992	1370	0.94	1236.36	665	13.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6050364.078
5573540	8/30/2004	1370	0.94	1236.36	665	13.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6050364.078
5573540	6/13/1994	1360	0.94	1226.96	669	13.9812%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6004363.336
5573540	5/4/1993	1350	0.94	1217.56	670	14.0021%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5958362.593
5573540	5/22/2008	1350	0.94	1217.56	670	14.0021%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5958362.593
5573540	6/22/2004	1350	0.94	1217.56	670	14.0021%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5958362.593

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/5/2015	1350	0.94	1217.56	670	14.0021%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5958362.593
5573540	5/28/1998	1340	0.94	1208.16	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5912361.851
5573540	5/14/2010	1340	0.94	1208.16	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5912361.851
5573540	6/10/1990	1340	0.94	1208.16	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5912361.851
5573540	6/1/2004	1340	0.94	1208.16	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5912361.851
5573540	6/18/2008	1340	0.94	1208.16	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5912361.851
5573540	6/3/2015	1340	0.94	1208.16	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5912361.851
5573540	5/11/2009	1330	0.94	1198.76	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5866361.108
5573540	6/14/1997	1330	0.94	1198.76	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5866361.108
5573540	6/12/2003	1330	0.94	1198.76	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5866361.108
5573540	6/8/2013	1330	0.94	1198.76	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5866361.108
5573540	6/4/2015	1330	0.94	1198.76	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5866361.108
5573540	6/9/2015	1330	0.94	1198.76	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5866361.108
5573540	7/11/2004	1330	0.94	1198.76	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5866361.108
5573540	7/18/2008	1330	0.94	1198.76	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5866361.108
5573540	8/14/1999	1330	0.94	1198.76	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5866361.108
5573540	5/7/1993	1320	0.94	1189.36	689	14.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5820360.366
5573540	6/7/1999	1320	0.94	1189.36	689	14.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5820360.366
5573540	6/23/2004	1320	0.94	1189.36	689	14.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5820360.366
5573540	7/3/1998	1320	0.94	1189.36	689	14.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5820360.366
5573540	9/23/2008	1320	0.94	1189.36	689	14.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5820360.366
5573540	5/8/1991	1310	0.94	1179.96	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5774359.624
5573540	5/17/2004	1310	0.94	1179.96	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5774359.624
5573540	6/6/1993	1310	0.94	1179.96	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5774359.624
5573540	6/9/1999	1310	0.94	1179.96	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5774359.624
5573540	6/7/2011	1310	0.94	1179.96	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5774359.624
5573540	6/12/2011	1310	0.94	1179.96	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5774359.624
5573540	10/26/2001	1310	0.94	1179.96	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5774359.624
5573540	5/14/2003	1300	0.94	1170.56	701	14.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5728358.881
5573540	6/2/2006	1300	0.94	1170.56	701	14.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5728358.881
5573540	7/20/1993	1300	0.94	1170.56	701	14.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5728358.881
5573540	10/4/1993	1300	0.94	1170.56	701	14.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5728358.881

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/7/2014	1300	0.94	1170.56	701	14.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5728358.881
5573540	5/19/2011	1290	0.94	1161.16	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5682358.139
5573540	6/18/1990	1290	0.94	1161.16	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5682358.139
5573540	6/5/1993	1290	0.94	1161.16	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5682358.139
5573540	6/9/1995	1290	0.94	1161.16	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5682358.139
5573540	6/15/1996	1290	0.94	1161.16	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5682358.139
5573540	6/13/1997	1290	0.94	1161.16	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5682358.139
5573540	6/26/1999	1290	0.94	1161.16	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5682358.139
5573540	7/24/1990	1290	0.94	1161.16	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5682358.139
5573540	7/19/1993	1290	0.94	1161.16	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5682358.139
5573540	5/9/1993	1280	0.94	1151.76	715	14.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5636357.396
5573540	6/7/2014	1280	0.94	1151.76	715	14.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5636357.396
5573540	7/26/2010	1280	0.94	1151.76	715	14.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5636357.396
5573540	5/6/1993	1270	0.94	1142.36	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5590356.654
5573540	5/21/1996	1270	0.94	1142.36	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5590356.654
5573540	5/12/2010	1270	0.94	1142.36	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5590356.654
5573540	5/13/2014	1270	0.94	1142.36	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5590356.654
5573540	6/12/1990	1270	0.94	1142.36	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5590356.654
5573540	6/2/2004	1270	0.94	1142.36	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5590356.654
5573540	6/9/2010	1270	0.94	1142.36	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5590356.654
5573540	6/30/2010	1270	0.94	1142.36	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5590356.654
5573540	7/1/1997	1270	0.94	1142.36	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5590356.654
5573540	7/11/2003	1270	0.94	1142.36	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5590356.654
5573540	8/31/2009	1270	0.94	1142.36	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5590356.654
5573540	9/3/2003	1270	0.94	1142.36	718	15.0052%	Fecal_coliform	120	cfu/100mL	200	283.2	3354213.992	5590356.654
5573540	10/27/2008	1270	0.94	1142.36	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5590356.654
5573540	10/8/2014	1270	0.94	1142.36	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5590356.654
5573540	5/13/2015	1260	0.94	1132.96	732	15.2978%	Fecal_coliform	269	cfu/100mL	200	283.2	7457158.701	5544355.912
5573540	6/22/2000	1260	0.94	1132.96	732	15.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5544355.912
5573540	7/11/2013	1260	0.94	1132.96	732	15.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5544355.912
5573540	9/17/2014	1260	0.94	1132.96	732	15.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5544355.912
5573540	5/15/1994	1250	0.94	1123.56	736	15.3814%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5498355.169

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/16/1996	1250	0.94	1123.56	736	15.3814%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5498355.169
5573540	6/20/2002	1250	0.94	1123.56	736	15.3814%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5498355.169
5573540	5/21/2014	1240	0.94	1114.16	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5452354.427
5573540	6/22/1996	1240	0.94	1114.16	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5452354.427
5573540	6/8/1999	1240	0.94	1114.16	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5452354.427
5573540	6/27/2000	1240	0.94	1114.16	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5452354.427
5573540	6/29/2011	1240	0.94	1114.16	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5452354.427
5573540	7/14/1993	1240	0.94	1114.16	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5452354.427
5573540	7/12/2003	1240	0.94	1114.16	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5452354.427
5573540	8/28/2002	1240	0.94	1114.16	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5452354.427
5573540	5/5/1991	1230	0.94	1104.76	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5406353.684
5573540	5/14/1991	1230	0.94	1104.76	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5406353.684
5573540	5/16/2003	1230	0.94	1104.76	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5406353.684
5573540	7/27/1990	1230	0.94	1104.76	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5406353.684
5573540	7/18/1993	1230	0.94	1104.76	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5406353.684
5573540	8/31/2004	1230	0.94	1104.76	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5406353.684
5573540	5/7/1991	1220	0.94	1095.36	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5360352.942
5573540	5/3/1993	1220	0.94	1095.36	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5360352.942
5573540	5/13/1994	1220	0.94	1095.36	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5360352.942
5573540	5/17/1998	1220	0.94	1095.36	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5360352.942
5573540	6/2/1997	1220	0.94	1095.36	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5360352.942
5573540	6/17/1999	1220	0.94	1095.36	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5360352.942
5573540	6/17/2011	1220	0.94	1095.36	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5360352.942
5573540	6/25/2013	1220	0.94	1095.36	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5360352.942
5573540	6/6/2014	1220	0.94	1095.36	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5360352.942
5573540	7/7/1998	1220	0.94	1095.36	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5360352.942
5573540	5/24/1996	1210	0.94	1085.96	763	15.9457%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5314352.2
5573540	5/29/1998	1210	0.94	1085.96	763	15.9457%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5314352.2
5573540	5/25/2008	1210	0.94	1085.96	763	15.9457%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5314352.2
5573540	5/6/2011	1210	0.94	1085.96	763	15.9457%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5314352.2
5573540	5/12/2009	1200	0.94	1076.56	767	16.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5268351.457
5573540	5/27/2013	1200	0.94	1076.56	767	16.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5268351.457

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/3/2013	1200	0.94	1076.56	767	16.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5268351.457
5573540	8/13/1993	1200	0.94	1076.56	767	16.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5268351.457
5573540	8/23/1993	1200	0.94	1076.56	767	16.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5268351.457
5573540	5/16/1994	1190	0.94	1067.16	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5222350.715
5573540	5/22/1996	1190	0.94	1067.16	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5222350.715
5573540	5/25/2004	1190	0.94	1067.16	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5222350.715
5573540	6/13/1990	1190	0.94	1067.16	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5222350.715
5573540	6/1/1997	1190	0.94	1067.16	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5222350.715
5573540	6/10/2015	1190	0.94	1067.16	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5222350.715
5573540	7/10/2003	1190	0.94	1067.16	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5222350.715
5573540	7/20/2010	1190	0.94	1067.16	772	16.1338%	Fecal_coliform	400	cfu/100mL	200	283.2	10444701.43	5222350.715
5573540	10/25/2008	1190	0.94	1067.16	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5222350.715
5573540	5/23/1996	1180	0.94	1057.76	781	16.3218%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5176349.972
5573540	5/31/1997	1180	0.94	1057.76	781	16.3218%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5176349.972
5573540	5/31/2000	1180	0.94	1057.76	781	16.3218%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5176349.972
5573540	5/8/2013	1180	0.94	1057.76	781	16.3218%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5176349.972
5573540	7/10/1998	1180	0.94	1057.76	781	16.3218%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5176349.972
5573540	5/31/1990	1170	0.94	1048.36	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5130349.23
5573540	5/31/2008	1170	0.94	1048.36	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5130349.23
5573540	5/25/2011	1170	0.94	1048.36	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5130349.23
5573540	6/12/1997	1170	0.94	1048.36	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5130349.23
5573540	7/16/1992	1170	0.94	1048.36	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5130349.23
5573540	7/5/2015	1170	0.94	1048.36	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5130349.23
5573540	10/26/2008	1170	0.94	1048.36	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5130349.23
5573540	5/27/1991	1160	0.94	1038.96	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5084348.488
5573540	5/18/1998	1160	0.94	1038.96	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5084348.488
5573540	5/26/2009	1160	0.94	1038.96	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5084348.488
5573540	5/20/2014	1160	0.94	1038.96	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5084348.488
5573540	6/15/1997	1160	0.94	1038.96	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5084348.488
5573540	6/16/1997	1160	0.94	1038.96	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5084348.488
5573540	6/19/2003	1160	0.94	1038.96	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5084348.488
5573540	7/18/2015	1160	0.94	1038.96	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5084348.488

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/28/2008	1160	0.94	1038.96	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5084348.488
5573540	5/20/2011	1150	0.94	1029.56	802	16.7607%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5038347.745
5573540	8/3/1992	1150	0.94	1029.56	802	16.7607%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5038347.745
5573540	9/4/2003	1150	0.94	1029.56	802	16.7607%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5038347.745
5573540	5/8/1995	1140	0.94	1020.16	805	16.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4992347.003
5573540	5/17/2011	1140	0.94	1020.16	805	16.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4992347.003
5573540	6/14/1993	1140	0.94	1020.16	805	16.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4992347.003
5573540	6/24/1995	1140	0.94	1020.16	805	16.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4992347.003
5573540	6/25/2009	1130	0.94	1010.76	809	16.9070%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4946346.26
5573540	7/6/2009	1130	0.94	1010.76	809	16.9070%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4946346.26
5573540	5/6/1997	1120	0.94	1001.36	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4900345.518
5573540	5/26/2002	1120	0.94	1001.36	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4900345.518
5573540	5/30/2002	1120	0.94	1001.36	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4900345.518
5573540	7/7/1992	1120	0.94	1001.36	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4900345.518
5573540	7/11/1993	1120	0.94	1001.36	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4900345.518
5573540	7/7/2000	1120	0.94	1001.36	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4900345.518
5573540	7/23/2008	1120	0.94	1001.36	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4900345.518
5573540	7/1/2014	1120	0.94	1001.36	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4900345.518
5573540	8/20/1993	1120	0.94	1001.36	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4900345.518
5573540	9/2/2003	1120	0.94	1001.36	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4900345.518
5573540	5/10/1993	1110	0.94	991.96	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4854344.776
5573540	6/11/1997	1110	0.94	991.96	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4854344.776
5573540	6/12/1999	1110	0.94	991.96	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4854344.776
5573540	6/1/2002	1110	0.94	991.96	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4854344.776
5573540	6/6/2015	1110	0.94	991.96	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4854344.776
5573540	7/8/1992	1110	0.94	991.96	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4854344.776
5573540	7/5/2009	1110	0.94	991.96	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4854344.776
5573540	7/1/2010	1110	0.94	991.96	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4854344.776
5573540	8/13/1999	1110	0.94	991.96	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4854344.776
5573540	5/11/1993	1100	0.94	982.56	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4808344.033
5573540	5/21/1998	1100	0.94	982.56	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4808344.033
5573540	5/26/2008	1100	0.94	982.56	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4808344.033

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/17/2010	1100	0.94	982.56	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4808344.033
5573540	5/18/2011	1100	0.94	982.56	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4808344.033
5573540	6/18/1999	1100	0.94	982.56	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4808344.033
5573540	7/12/2000	1100	0.94	982.56	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4808344.033
5573540	7/10/2013	1100	0.94	982.56	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4808344.033
5573540	10/28/2004	1100	0.94	982.56	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4808344.033
5573540	5/25/2002	1090	0.94	973.16	839	17.5340%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4762343.291
5573540	6/10/2011	1090	0.94	973.16	839	17.5340%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4762343.291
5573540	6/20/2011	1090	0.94	973.16	839	17.5340%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4762343.291
5573540	5/16/1999	1080	0.94	963.76	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4716342.548
5573540	5/2/2013	1080	0.94	963.76	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4716342.548
5573540	6/8/1997	1080	0.94	963.76	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4716342.548
5573540	7/15/1992	1080	0.94	963.76	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4716342.548
5573540	7/17/2003	1080	0.94	963.76	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4716342.548
5573540	7/8/2015	1080	0.94	963.76	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4716342.548
5573540	5/3/1996	1070	0.94	954.36	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4670341.806
5573540	5/7/2011	1070	0.94	954.36	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4670341.806
5573540	5/8/2011	1070	0.94	954.36	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4670341.806
5573540	5/14/2015	1070	0.94	954.36	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4670341.806
5573540	6/4/1993	1070	0.94	954.36	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4670341.806
5573540	6/21/1996	1070	0.94	954.36	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4670341.806
5573540	6/17/1997	1070	0.94	954.36	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4670341.806
5573540	6/18/2003	1070	0.94	954.36	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4670341.806
5573540	7/13/2013	1070	0.94	954.36	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4670341.806
5573540	8/20/2006	1070	0.94	954.36	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4670341.806
5573540	5/1/1995	1060	0.94	944.96	858	17.9310%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4624341.064
5573540	5/27/2008	1060	0.94	944.96	858	17.9310%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4624341.064
5573540	6/9/1997	1060	0.94	944.96	858	17.9310%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4624341.064
5573540	6/10/1997	1060	0.94	944.96	858	17.9310%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4624341.064
5573540	9/1/2004	1060	0.94	944.96	858	17.9310%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4624341.064
5573540	5/27/2002	1050	0.94	935.56	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578340.321
5573540	5/16/2015	1050	0.94	935.56	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578340.321

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/7/1997	1050	0.94	935.56	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578340.321
5573540	6/16/2008	1050	0.94	935.56	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578340.321
5573540	6/15/2014	1050	0.94	935.56	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578340.321
5573540	9/15/2014	1050	0.94	935.56	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578340.321
5573540	10/19/1990	1050	0.94	935.56	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578340.321
5573540	5/28/1991	1040	0.94	926.16	870	18.1818%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4532339.579
5573540	5/30/1997	1040	0.94	926.16	870	18.1818%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4532339.579
5573540	5/24/2014	1040	0.94	926.16	870	18.1818%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4532339.579
5573540	10/27/2001	1040	0.94	926.16	870	18.1818%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4532339.579
5573540	5/5/1997	1030	0.94	916.76	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4486338.836
5573540	6/8/1990	1030	0.94	916.76	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4486338.836
5573540	6/10/1998	1030	0.94	916.76	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4486338.836
5573540	6/12/2001	1030	0.94	916.76	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4486338.836
5573540	7/8/2000	1030	0.94	916.76	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4486338.836
5573540	10/30/2004	1030	0.94	916.76	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4486338.836
5573540	5/9/1992	1020	0.94	907.36	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4440338.094
5573540	5/7/1996	1020	0.94	907.36	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4440338.094
5573540	5/13/2013	1020	0.94	907.36	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4440338.094
5573540	5/14/2014	1020	0.94	907.36	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4440338.094
5573540	6/9/1990	1020	0.94	907.36	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4440338.094
5573540	6/30/1997	1020	0.94	907.36	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4440338.094
5573540	5/15/1991	1010	0.94	897.96	886	18.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4394337.352
5573540	6/27/1995	1010	0.94	897.96	886	18.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4394337.352
5573540	6/4/1999	1010	0.94	897.96	886	18.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4394337.352
5573540	6/28/2000	1010	0.94	897.96	886	18.5162%	Fecal_coliform	140	cfu/100mL	200	283.2	3076036.146	4394337.352
5573540	10/20/2014	1010	0.94	897.96	886	18.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4394337.352
5573540	5/1/1991	1000	0.94	888.56	891	18.6207%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4348336.609
5573540	6/16/1995	996	0.94	884.80	892	18.6416%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4329936.312
5573540	5/7/2003	995	0.94	883.86	893	18.6625%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4325336.238
5573540	6/17/2008	993	0.94	881.98	894	18.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4316136.089
5573540	6/21/2011	991	0.94	880.10	895	18.7043%	Fecal_coliform	140	cfu/100mL	200	283.2	3014855.159	4306935.941
5573540	6/4/1990	989	0.94	878.22	896	18.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4297735.793

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/23/1993	985	0.94	874.46	897	18.7461%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4279335.496
5573540	6/23/1995	984	0.94	873.52	898	18.7670%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4274735.421
5573540	7/12/1993	984	0.94	873.52	898	18.7670%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4274735.421
5573540	5/25/1996	982	0.94	871.64	900	18.8088%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4265535.273
5573540	6/24/1993	982	0.94	871.64	900	18.8088%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4265535.273
5573540	6/3/2009	980	0.94	869.76	902	18.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4256335.124
5573540	5/22/2014	979	0.94	868.82	903	18.8715%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4251735.05
5573540	6/28/2014	979	0.94	868.82	903	18.8715%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4251735.05
5573540	7/21/1993	979	0.94	868.82	903	18.8715%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4251735.05
5573540	6/19/1999	978	0.94	867.88	906	18.9342%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4247134.976
5573540	6/26/1995	977	0.94	866.94	907	18.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4242534.902
5573540	5/31/2015	976	0.94	866.00	908	18.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4237934.827
5573540	5/15/2015	975	0.94	865.06	909	18.9969%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4233334.753
5573540	6/24/2013	975	0.94	865.06	909	18.9969%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4233334.753
5573540	10/22/1990	975	0.94	865.06	909	18.9969%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4233334.753
5573540	5/30/2000	973	0.94	863.18	912	19.0596%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4224134.605
5573540	5/30/1998	972	0.94	862.24	913	19.0805%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4219534.53
5573540	10/9/2014	970	0.94	860.36	914	19.1014%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4210334.382
5573540	5/24/2004	969	0.94	859.42	915	19.1223%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4205734.308
5573540	5/16/2013	968	0.94	858.48	916	19.1432%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4201134.233
5573540	6/15/2005	968	0.94	858.48	916	19.1432%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4201134.233
5573540	6/13/2001	966	0.94	856.60	918	19.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4191934.085
5573540	5/20/1998	962	0.94	852.84	919	19.2059%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4173533.788
5573540	5/28/1997	961	0.94	851.90	920	19.2268%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4168933.714
5573540	6/4/2009	960	0.94	850.96	921	19.2476%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4164333.64
5573540	8/14/1993	958	0.94	849.08	922	19.2685%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4155133.491
5573540	6/20/1996	956	0.94	847.20	923	19.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4145933.343
5573540	6/8/2015	956	0.94	847.20	923	19.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4145933.343
5573540	6/22/2011	955	0.94	846.26	925	19.3312%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4141333.268
5573540	5/17/2003	954	0.94	845.32	926	19.3521%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4136733.194
5573540	5/23/2014	953	0.94	844.38	927	19.3730%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4132133.12
5573540	6/22/1993	953	0.94	844.38	927	19.3730%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4132133.12

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/16/2010	950	0.94	841.56	929	19.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4118332.897
5573540	6/7/2009	950	0.94	841.56	929	19.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4118332.897
5573540	5/31/2014	949	0.94	840.62	931	19.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4113732.823
5573540	5/27/2010	947	0.94	838.74	932	19.4775%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4104532.674
5573540	6/6/2009	947	0.94	838.74	932	19.4775%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4104532.674
5573540	6/5/2009	942	0.94	834.04	934	19.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4081532.303
5573540	5/14/1999	941	0.94	833.10	935	19.5402%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4076932.229
5573540	6/21/1993	940	0.94	832.16	936	19.5611%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4072332.155
5573540	7/19/2008	940	0.94	832.16	936	19.5611%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4072332.155
5573540	6/11/1993	939	0.94	831.22	938	19.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4067732.081
5573540	10/13/2009	939	0.94	831.22	938	19.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4067732.081
5573540	6/27/1999	935	0.94	827.46	940	19.6447%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4049331.784
5573540	9/18/2014	934	0.94	826.52	941	19.6656%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4044731.709
5573540	5/17/1993	932	0.94	824.64	942	19.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4035531.561
5573540	6/5/1997	930	0.94	822.76	943	19.7074%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4026331.412
5573540	10/30/2001	930	0.94	822.76	943	19.7074%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4026331.412
5573540	5/6/2002	927	0.94	819.94	945	19.7492%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4012531.19
5573540	5/29/2009	927	0.94	819.94	945	19.7492%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4012531.19
5573540	6/23/2011	924	0.94	817.12	947	19.7910%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3998730.967
5573540	6/2/2002	923	0.94	816.18	948	19.8119%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3994130.893
5573540	5/30/2009	922	0.94	815.24	949	19.8328%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3989530.818
5573540	8/1/1993	920	0.94	813.36	950	19.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3980330.67
5573540	6/7/1990	919	0.94	812.42	951	19.8746%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3975730.596
5573540	6/12/2009	919	0.94	812.42	951	19.8746%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3975730.596
5573540	7/13/2004	917	0.94	810.54	953	19.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3966530.447
5573540	6/13/1993	913	0.94	806.78	954	19.9373%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3948130.15
5573540	6/1/2000	913	0.94	806.78	954	19.9373%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3948130.15
5573540	7/19/2015	912	0.94	805.84	956	19.9791%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3943530.076
5573540	5/13/1999	911	0.94	804.90	957	20.0000%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3938930.002
5573540	5/9/2011	910	0.94	803.96	958	20.0209%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3934329.928
5573540	6/3/1990	909	0.94	803.02	959	20.0418%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3929729.853
5573540	6/21/2000	909	0.94	803.02	959	20.0418%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3929729.853

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/21/2003	908	0.94	802.08	961	20.0836%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3925129.779
5573540	6/9/1992	905	0.94	799.26	962	20.1045%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3911329.556
5573540	9/22/1993	905	0.94	799.26	962	20.1045%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3911329.556
5573540	10/14/2009	904	0.94	798.32	964	20.1463%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3906729.482
5573540	7/27/1996	903	0.94	797.38	965	20.1672%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3902129.408
5573540	6/6/1995	902	0.94	796.44	966	20.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3897529.334
5573540	6/17/1996	902	0.94	796.44	966	20.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3897529.334
5573540	7/11/1998	902	0.94	796.44	966	20.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3897529.334
5573540	5/1/1999	901	0.94	795.50	969	20.2508%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3892929.259
5573540	10/20/1990	900	0.94	794.56	970	20.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3888329.185
5573540	6/26/2009	899	0.94	793.62	971	20.2926%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3883729.111
5573540	7/10/2004	895	0.94	789.86	972	20.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3865328.814
5573540	9/2/2009	895	0.94	789.86	972	20.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3865328.814
5573540	6/19/1996	894	0.94	788.92	974	20.3553%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3860728.74
5573540	5/4/2006	893	0.94	787.98	975	20.3762%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3856128.665
5573540	5/4/1997	892	0.94	787.04	976	20.3971%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3851528.591
5573540	6/9/1998	891	0.94	786.10	977	20.4180%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3846928.517
5573540	8/28/2006	891	0.94	786.10	977	20.4180%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3846928.517
5573540	10/5/1993	891	0.94	786.10	977	20.4180%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3846928.517
5573540	10/18/2006	889	0.94	784.22	980	20.4807%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3837728.369
5573540	6/8/2010	888	0.94	783.28	981	20.5016%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3833128.294
5573540	10/29/2004	888	0.94	783.28	981	20.5016%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3833128.294
5573540	5/31/2009	887	0.94	782.34	983	20.5434%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3828528.22
5573540	5/7/1997	885	0.94	780.46	984	20.5643%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3819328.072
5573540	5/29/2002	885	0.94	780.46	984	20.5643%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3819328.072
5573540	5/31/2002	883	0.94	778.58	986	20.6061%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3810127.923
5573540	5/17/2015	882	0.94	777.64	987	20.6270%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3805527.849
5573540	6/25/1995	880	0.94	775.76	988	20.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3796327.7
5573540	5/18/2003	876	0.94	772.00	989	20.6688%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3777927.403
5573540	5/27/2009	872	0.94	768.24	990	20.6897%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3759527.106
5573540	6/1/1998	868	0.94	764.48	991	20.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3741126.809
5573540	6/27/2009	868	0.94	764.48	991	20.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3741126.809

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/25/1993	868	0.94	764.48	991	20.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3741126.809
5573540	7/4/2013	868	0.94	764.48	991	20.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3741126.809
5573540	5/8/2003	867	0.94	763.54	995	20.7941%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3736526.735
5573540	6/28/1995	867	0.94	763.54	995	20.7941%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3736526.735
5573540	5/15/1999	866	0.94	762.60	997	20.8359%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3731926.661
5573540	5/6/1999	865	0.94	761.66	998	20.8568%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3727326.587
5573540	5/21/2013	865	0.94	761.66	998	20.8568%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3727326.587
5573540	8/30/2009	863	0.94	759.78	1000	20.8986%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3718126.438
5573540	9/25/2008	863	0.94	759.78	1000	20.8986%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3718126.438
5573540	6/11/2002	861	0.94	757.90	1002	20.9404%	Fecal_coliform	20	cfu/100mL	200	283.2	370892.629	3708926.29
5573540	6/25/1999	860	0.94	756.96	1003	20.9613%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3704326.216
5573540	5/17/1994	857	0.94	754.14	1004	20.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3690525.993
5573540	6/15/2000	857	0.94	754.14	1004	20.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3690525.993
5573540	7/13/1993	856	0.94	753.20	1006	21.0240%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3685925.919
5573540	7/5/1998	856	0.94	753.20	1006	21.0240%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3685925.919
5573540	6/14/2011	855	0.94	752.26	1008	21.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3681325.844
5573540	7/22/2003	855	0.94	752.26	1008	21.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3681325.844
5573540	5/15/2010	854	0.94	751.32	1010	21.1076%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3676725.77
5573540	10/21/2006	854	0.94	751.32	1010	21.1076%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3676725.77
5573540	5/14/2011	853	0.94	750.38	1012	21.1494%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3672125.696
5573540	5/23/2013	853	0.94	750.38	1012	21.1494%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3672125.696
5573540	7/23/1993	851	0.94	748.50	1014	21.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3662925.547
5573540	5/28/2002	849	0.94	746.62	1015	21.2121%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3653725.399
5573540	6/6/2002	848	0.94	745.68	1016	21.2330%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3649125.325
5573540	6/9/1991	847	0.94	744.74	1017	21.2539%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3644525.25
5573540	6/1/1990	845	0.94	742.86	1018	21.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3635325.102
5573540	8/22/1993	845	0.94	742.86	1018	21.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3635325.102
5573540	8/24/1993	843	0.94	740.98	1020	21.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3626124.953
5573540	7/6/1998	842	0.94	740.04	1021	21.3375%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3621524.879
5573540	5/19/1994	841	0.94	739.10	1022	21.3584%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3616924.805
5573540	7/14/2006	839	0.94	737.22	1023	21.3793%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3607724.657
5573540	6/28/1999	838	0.94	736.28	1024	21.4002%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3603124.582

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/2/1999	835	0.94	733.46	1025	21.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3589324.36
5573540	5/5/2008	835	0.94	733.46	1025	21.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3589324.36
5573540	6/8/2009	835	0.94	733.46	1025	21.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3589324.36
5573540	5/28/2010	834	0.94	732.52	1028	21.4838%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3584724.285
5573540	7/2/2010	834	0.94	732.52	1028	21.4838%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3584724.285
5573540	5/26/1991	833	0.94	731.58	1030	21.5256%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3580124.211
5573540	5/25/1994	830	0.94	728.76	1031	21.5465%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3566323.988
5573540	9/21/1993	830	0.94	728.76	1031	21.5465%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3566323.988
5573540	10/18/2009	829	0.94	727.82	1033	21.5883%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3561723.914
5573540	5/21/2011	828	0.94	726.88	1034	21.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3557123.84
5573540	6/11/2009	828	0.94	726.88	1034	21.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3557123.84
5573540	7/14/2013	828	0.94	726.88	1034	21.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3557123.84
5573540	5/3/1990	827	0.94	725.94	1037	21.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3552523.766
5573540	6/18/1996	827	0.94	725.94	1037	21.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3552523.766
5573540	6/24/2004	826	0.94	725.00	1039	21.7137%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3547923.691
5573540	6/11/2001	822	0.94	721.24	1040	21.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3529523.394
5573540	6/6/1997	820	0.94	719.36	1041	21.7555%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3520323.246
5573540	5/22/2013	818	0.94	717.48	1042	21.7764%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3511123.097
5573540	5/4/1991	814	0.94	713.72	1043	21.7973%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3492722.801
5573540	6/8/2011	814	0.94	713.72	1043	21.7973%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3492722.801
5573540	10/21/2014	814	0.94	713.72	1043	21.7973%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3492722.801
5573540	5/3/1995	813	0.94	712.78	1046	21.8600%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3488122.726
5573540	6/18/1997	813	0.94	712.78	1046	21.8600%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3488122.726
5573540	5/11/2010	812	0.94	711.84	1048	21.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3483522.652
5573540	6/6/1990	812	0.94	711.84	1048	21.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3483522.652
5573540	7/1/2011	811	0.94	710.90	1050	21.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3478922.578
5573540	6/3/2010	810	0.94	709.96	1051	21.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3474322.504
5573540	5/3/2006	809	0.94	709.02	1052	21.9854%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3469722.429
5573540	6/26/1993	809	0.94	709.02	1052	21.9854%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3469722.429
5573540	6/7/2002	809	0.94	709.02	1052	21.9854%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3469722.429
5573540	10/7/2000	804	0.94	704.32	1055	22.0481%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3446722.058
5573540	5/29/1997	802	0.94	702.44	1056	22.0690%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3437521.91

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/8/2012	801	0.94	701.50	1057	22.0899%	Fecal_coliform	27	cfu/100mL	200	283.2	463444.4478	3432921.835
5573540	5/25/2010	800	0.94	700.56	1058	22.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3428321.761
5573540	6/30/2011	800	0.94	700.56	1058	22.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3428321.761
5573540	7/1/2007	798	0.94	698.68	1060	22.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3419121.613
5573540	5/6/2008	797	0.94	697.74	1061	22.1735%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3414521.538
5573540	5/6/2003	796	0.94	696.80	1062	22.1944%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3409921.464
5573540	6/1/1993	795	0.94	695.86	1063	22.2153%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3405321.39
5573540	8/1/2006	795	0.94	695.86	1063	22.2153%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3405321.39
5573540	6/28/2009	793	0.94	693.98	1065	22.2571%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3396121.241
5573540	6/19/2008	789	0.94	690.22	1066	22.2780%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3377720.945
5573540	6/2/2000	788	0.94	689.28	1067	22.2989%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3373120.87
5573540	6/8/2002	788	0.94	689.28	1067	22.2989%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3373120.87
5573540	6/2/1990	787	0.94	688.34	1069	22.3406%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3368520.796
5573540	6/2/2010	787	0.94	688.34	1069	22.3406%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3368520.796
5573540	6/29/1999	786	0.94	687.40	1071	22.3824%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3363920.722
5573540	7/13/2000	786	0.94	687.40	1071	22.3824%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3363920.722
5573540	6/30/2007	785	0.94	686.46	1073	22.4242%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3359320.648
5573540	7/16/2004	784	0.94	685.52	1074	22.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3354720.573
5573540	5/22/1998	782	0.94	683.64	1075	22.4660%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3345520.425
5573540	7/19/1992	782	0.94	683.64	1075	22.4660%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3345520.425
5573540	5/12/1993	780	0.94	681.76	1077	22.5078%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3336320.276
5573540	10/20/2001	780	0.94	681.76	1077	22.5078%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3336320.276
5573540	5/1/2006	779	0.94	680.82	1079	22.5496%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3331720.202
5573540	7/22/1993	779	0.94	680.82	1079	22.5496%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3331720.202
5573540	5/31/2010	776	0.94	678.00	1081	22.5914%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3317919.979
5573540	7/15/2004	775	0.94	677.06	1082	22.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3313319.905
5573540	5/24/2013	772	0.94	674.24	1083	22.6332%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3299519.682
5573540	6/9/2013	772	0.94	674.24	1083	22.6332%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3299519.682
5573540	7/9/2014	772	0.94	674.24	1083	22.6332%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3299519.682
5573540	5/2/2006	771	0.94	673.30	1086	22.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3294919.608
5573540	5/26/1994	770	0.94	672.36	1087	22.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3290319.534
5573540	5/30/2010	770	0.94	672.36	1087	22.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3290319.534

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/3/1997	770	0.94	672.36	1087	22.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3290319.534
5573540	7/12/2013	769	0.94	671.42	1090	22.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3285719.46
5573540	5/28/2009	765	0.94	667.66	1091	22.8004%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3267319.163
5573540	6/11/1999	763	0.94	665.78	1092	22.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3258119.014
5573540	6/13/2009	763	0.94	665.78	1092	22.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3258119.014
5573540	6/10/2004	762	0.94	664.84	1094	22.8631%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3253518.94
5573540	6/24/2011	762	0.94	664.84	1094	22.8631%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3253518.94
5573540	5/28/2008	759	0.94	662.02	1096	22.9049%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3239718.717
5573540	6/9/2002	759	0.94	662.02	1096	22.9049%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3239718.717
5573540	6/5/2010	758	0.94	661.08	1098	22.9467%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3235118.643
5573540	9/24/2008	758	0.94	661.08	1098	22.9467%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3235118.643
5573540	7/11/1990	757	0.94	660.14	1100	22.9885%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3230518.569
5573540	7/27/2010	756	0.94	659.20	1101	23.0094%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3225918.495
5573540	5/18/1993	753	0.94	656.38	1102	23.0303%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3212118.272
5573540	7/1/2008	753	0.94	656.38	1102	23.0303%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3212118.272
5573540	6/5/1998	751	0.94	654.50	1104	23.0721%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3202918.123
5573540	6/25/2007	751	0.94	654.50	1104	23.0721%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3202918.123
5573540	6/1/2010	750	0.94	653.56	1106	23.1139%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3198318.049
5573540	7/14/2004	750	0.94	653.56	1106	23.1139%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3198318.049
5573540	8/8/1995	750	0.94	653.56	1106	23.1139%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3198318.049
5573540	6/4/2010	749	0.94	652.62	1109	23.1766%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3193717.975
5573540	7/3/2008	749	0.94	652.62	1109	23.1766%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3193717.975
5573540	5/20/1994	748	0.94	651.68	1111	23.2184%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3189117.901
5573540	6/20/2003	748	0.94	651.68	1111	23.2184%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3189117.901
5573540	6/4/1991	747	0.94	650.74	1113	23.2602%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3184517.826
5573540	6/5/2001	747	0.94	650.74	1113	23.2602%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3184517.826
5573540	7/12/2004	747	0.94	650.74	1113	23.2602%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3184517.826
5573540	6/13/2011	746	0.94	649.80	1116	23.3229%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3179917.752
5573540	5/17/1999	745	0.94	648.86	1117	23.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3175317.678
5573540	5/26/2010	745	0.94	648.86	1117	23.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3175317.678
5573540	5/18/2015	745	0.94	648.86	1117	23.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3175317.678
5573540	6/25/1993	744	0.94	647.92	1120	23.4065%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3170717.604

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/5/2006	743	0.94	646.98	1121	23.4274%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3166117.529
5573540	5/8/2008	742	0.94	646.04	1122	23.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3161517.455
5573540	6/29/2014	742	0.94	646.04	1122	23.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3161517.455
5573540	8/29/2002	741	0.94	645.10	1124	23.4901%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3156917.381
5573540	10/21/1990	741	0.94	645.10	1124	23.4901%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3156917.381
5573540	7/22/2013	739	0.94	643.22	1126	23.5319%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3147717.233
5573540	5/31/1998	737	0.94	641.34	1127	23.5528%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3138517.084
5573540	6/6/2010	734	0.94	638.52	1128	23.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3124716.861
5573540	10/8/1993	734	0.94	638.52	1128	23.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3124716.861
5573540	6/30/1999	732	0.94	636.64	1130	23.6155%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3115516.713
5573540	5/25/2014	731	0.94	635.70	1131	23.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3110916.639
5573540	5/5/1999	730	0.94	634.76	1132	23.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3106316.564
5573540	5/30/2008	730	0.94	634.76	1132	23.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3106316.564
5573540	8/15/1993	730	0.94	634.76	1132	23.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3106316.564
5573540	5/15/2013	728	0.94	632.88	1135	23.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3097116.416
5573540	7/24/1993	728	0.94	632.88	1135	23.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3097116.416
5573540	5/21/1994	723	0.94	628.18	1137	23.7618%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3074116.045
5573540	6/4/1997	719	0.94	624.42	1138	23.7827%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3055715.748
5573540	6/10/2013	719	0.94	624.42	1138	23.7827%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3055715.748
5573540	7/20/2008	719	0.94	624.42	1138	23.7827%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3055715.748
5573540	6/7/2010	718	0.94	623.48	1141	23.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3051115.673
5573540	10/20/2006	718	0.94	623.48	1141	23.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3051115.673
5573540	5/3/1997	717	0.94	622.54	1143	23.8871%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3046515.599
5573540	5/21/2003	717	0.94	622.54	1143	23.8871%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3046515.599
5573540	6/12/1993	717	0.94	622.54	1143	23.8871%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3046515.599
5573540	5/9/2003	716	0.94	621.60	1146	23.9498%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3041915.525
5573540	8/4/1992	716	0.94	621.60	1146	23.9498%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3041915.525
5573540	6/24/2007	715	0.94	620.66	1148	23.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3037315.451
5573540	7/28/1996	715	0.94	620.66	1148	23.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3037315.451
5573540	5/13/1991	713	0.94	618.78	1150	24.0334%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3028115.302
5573540	10/22/2006	712	0.94	617.84	1151	24.0543%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3023515.228
5573540	6/21/2002	711	0.94	616.90	1152	24.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3018915.154

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/29/2007	711	0.94	616.90	1152	24.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3018915.154
5573540	9/14/1993	711	0.94	616.90	1152	24.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3018915.154
5573540	6/22/2002	710	0.94	615.96	1155	24.1379%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3014315.08
5573540	7/11/2000	710	0.94	615.96	1155	24.1379%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3014315.08
5573540	7/17/1992	709	0.94	615.02	1157	24.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3009715.005
5573540	5/10/2010	708	0.94	614.08	1158	24.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3005114.931
5573540	6/10/1999	708	0.94	614.08	1158	24.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3005114.931
5573540	7/26/1996	708	0.94	614.08	1158	24.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3005114.931
5573540	9/26/2008	708	0.94	614.08	1158	24.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3005114.931
5573540	6/5/1990	706	0.94	612.20	1162	24.2842%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2995914.783
5573540	7/10/2009	705	0.94	611.26	1163	24.3051%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2991314.708
5573540	7/2/2011	705	0.94	611.26	1163	24.3051%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2991314.708
5573540	6/8/2004	704	0.94	610.32	1165	24.3469%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2986714.634
5573540	8/25/1993	704	0.94	610.32	1165	24.3469%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2986714.634
5573540	7/18/1992	702	0.94	608.44	1167	24.3887%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2977514.486
5573540	7/23/2003	702	0.94	608.44	1167	24.3887%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2977514.486
5573540	5/24/1992	701	0.94	607.50	1169	24.4305%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2972914.411
5573540	5/2/2010	701	0.94	607.50	1169	24.4305%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2972914.411
5573540	6/1/2009	700	0.94	606.56	1171	24.4723%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2968314.337
5573540	6/14/2009	700	0.94	606.56	1171	24.4723%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2968314.337
5573540	6/1/2014	700	0.94	606.56	1171	24.4723%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2968314.337
5573540	6/25/2004	699	0.94	605.62	1174	24.5350%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2963714.263
5573540	6/23/2008	698	0.94	604.68	1175	24.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2959114.189
5573540	7/7/1990	698	0.94	604.68	1175	24.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2959114.189
5573540	5/15/2011	695	0.94	601.86	1177	24.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2945313.966
5573540	7/29/2008	694	0.94	600.92	1178	24.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2940713.892
5573540	6/4/1998	693	0.94	599.98	1179	24.6395%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2936113.817
5573540	8/5/1992	693	0.94	599.98	1179	24.6395%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2936113.817
5573540	5/15/2006	692	0.94	599.04	1181	24.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2931513.743
5573540	10/29/2008	691	0.94	598.10	1182	24.7022%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2926913.669
5573540	9/5/2003	690	0.94	597.16	1183	24.7231%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2922313.595
5573540	6/22/2008	689	0.94	596.22	1184	24.7440%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2917713.521

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/21/2004	688	0.94	595.28	1185	24.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2913113.446
5573540	5/7/2012	686	0.94	593.40	1186	24.7858%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2903913.298
5573540	6/20/2008	686	0.94	593.40	1186	24.7858%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2903913.298
5573540	7/11/2009	686	0.94	593.40	1186	24.7858%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2903913.298
5573540	5/10/2012	684	0.94	591.52	1189	24.8485%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2894713.149
5573540	6/25/2011	684	0.94	591.52	1189	24.8485%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2894713.149
5573540	5/23/2008	683	0.94	590.58	1191	24.8903%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2890113.075
5573540	6/29/2000	683	0.94	590.58	1191	24.8903%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2890113.075
5573540	5/4/1990	681	0.94	588.70	1193	24.9321%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2880912.927
5573540	5/29/2010	681	0.94	588.70	1193	24.9321%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2880912.927
5573540	7/7/2009	681	0.94	588.70	1193	24.9321%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2880912.927
5573540	5/6/2006	679	0.94	586.82	1196	24.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2871712.778
5573540	10/22/2014	679	0.94	586.82	1196	24.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2871712.778
5573540	6/26/2011	677	0.94	584.94	1198	25.0366%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2862512.63
5573540	6/17/2013	677	0.94	584.94	1198	25.0366%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2862512.63
5573540	6/2/1994	675	0.94	583.06	1200	25.0784%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2853312.481
5573540	5/27/1997	674	0.94	582.12	1201	25.0993%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2848712.407
5573540	6/3/1998	674	0.94	582.12	1201	25.0993%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2848712.407
5573540	5/7/2006	673	0.94	581.18	1203	25.1411%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2844112.333
5573540	6/14/1994	673	0.94	581.18	1203	25.1411%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2844112.333
5573540	6/14/2000	670	0.94	578.36	1205	25.1829%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2830312.11
5573540	7/12/1990	670	0.94	578.36	1205	25.1829%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2830312.11
5573540	5/4/1995	669	0.94	577.42	1207	25.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2825712.036
5573540	5/9/2012	669	0.94	577.42	1207	25.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2825712.036
5573540	7/4/2008	669	0.94	577.42	1207	25.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2825712.036
5573540	6/9/2009	668	0.94	576.48	1210	25.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2821111.961
5573540	7/17/2004	668	0.94	576.48	1210	25.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2821111.961
5573540	5/22/2011	667	0.94	575.54	1212	25.3292%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2816511.887
5573540	6/2/1998	667	0.94	575.54	1212	25.3292%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2816511.887
5573540	7/12/2014	667	0.94	575.54	1212	25.3292%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2816511.887
5573540	5/1/2010	665	0.94	573.66	1215	25.3918%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2807311.739
5573540	6/20/2013	665	0.94	573.66	1215	25.3918%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2807311.739

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/9/1990	665	0.94	573.66	1215	25.3918%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2807311.739
5573540	5/16/2006	664	0.94	572.72	1218	25.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2802711.665
5573540	10/27/2004	664	0.94	572.72	1218	25.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2802711.665
5573540	5/19/1999	662	0.94	570.84	1220	25.4963%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2793511.516
5573540	7/23/1998	662	0.94	570.84	1220	25.4963%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2793511.516
5573540	7/27/2008	659	0.94	568.02	1222	25.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2779711.293
5573540	6/20/1999	658	0.94	567.08	1223	25.5590%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2775111.219
5573540	6/19/2013	658	0.94	567.08	1223	25.5590%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2775111.219
5573540	7/14/1990	658	0.94	567.08	1223	25.5590%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2775111.219
5573540	5/22/1994	655	0.94	564.26	1226	25.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2761310.996
5573540	6/23/1996	654	0.94	563.32	1227	25.6426%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2756710.922
5573540	9/19/2014	654	0.94	563.32	1227	25.6426%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2756710.922
5573540	5/14/1994	653	0.94	562.38	1229	25.6844%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2752110.848
5573540	6/29/1995	653	0.94	562.38	1229	25.6844%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2752110.848
5573540	5/11/2012	652	0.94	561.44	1231	25.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2747510.774
5573540	6/3/2006	652	0.94	561.44	1231	25.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2747510.774
5573540	5/13/1993	651	0.94	560.50	1233	25.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2742910.699
5573540	5/20/1999	651	0.94	560.50	1233	25.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2742910.699
5573540	6/21/2008	651	0.94	560.50	1233	25.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2742910.699
5573540	6/1/1991	650	0.94	559.56	1236	25.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2738310.625
5573540	6/23/2002	650	0.94	559.56	1236	25.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2738310.625
5573540	7/9/2009	649	0.94	558.62	1238	25.8725%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2733710.551
5573540	10/25/2006	649	0.94	558.62	1238	25.8725%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2733710.551
5573540	7/12/2009	648	0.94	557.68	1240	25.9143%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2729110.477
5573540	6/24/1996	647	0.94	556.74	1241	25.9352%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2724510.402
5573540	10/13/2014	647	0.94	556.74	1241	25.9352%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2724510.402
5573540	5/29/2008	646	0.94	555.80	1243	25.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2719910.328
5573540	10/19/2009	644	0.94	553.92	1244	25.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2710710.18
5573540	6/2/2009	642	0.94	552.04	1245	26.0188%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2701510.031
5573540	6/16/2013	642	0.94	552.04	1245	26.0188%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2701510.031
5573540	5/5/2003	640	0.94	550.16	1247	26.0606%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2692309.883
5573540	5/8/1997	638	0.94	548.28	1248	26.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2683109.734

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/16/2000	638	0.94	548.28	1248	26.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2683109.734
5573540	6/10/2009	638	0.94	548.28	1248	26.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2683109.734
5573540	6/15/2009	638	0.94	548.28	1248	26.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2683109.734
5573540	9/1/2009	638	0.94	548.28	1248	26.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2683109.734
5573540	9/4/2010	637	0.94	547.34	1253	26.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2678509.66
5573540	9/20/2014	637	0.94	547.34	1253	26.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2678509.66
5573540	5/8/2006	636	0.94	546.40	1255	26.2278%	Fecal_coliform	300	cfu/100mL	200	283.2	4010864.379	2673909.586
5573540	7/3/2010	635	0.94	545.46	1256	26.2487%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2669309.512
5573540	10/10/2014	635	0.94	545.46	1256	26.2487%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2669309.512
5573540	8/21/1993	634	0.94	544.52	1258	26.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2664709.437
5573540	6/2/1991	632	0.94	542.64	1259	26.3114%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2655509.289
5573540	6/11/2013	632	0.94	542.64	1259	26.3114%	Fecal_coliform	5	cfu/100mL	200	283.2	66387.73222	2655509.289
5573540	7/5/2013	632	0.94	542.64	1259	26.3114%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2655509.289
5573540	6/30/2008	630	0.94	540.76	1262	26.3741%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2646309.14
5573540	7/14/1998	630	0.94	540.76	1262	26.3741%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2646309.14
5573540	5/9/1990	629	0.94	539.82	1264	26.4159%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2641709.066
5573540	7/21/2010	628	0.94	538.88	1265	26.4368%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2637108.992
5573540	6/6/1998	627	0.94	537.94	1266	26.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2632508.918
5573540	7/21/2008	627	0.94	537.94	1266	26.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2632508.918
5573540	5/26/2013	626	0.94	537.00	1268	26.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2627908.843
5573540	7/3/2011	626	0.94	537.00	1268	26.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2627908.843
5573540	7/2/2007	625	0.94	536.06	1270	26.5413%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2623308.769
5573540	6/17/2009	624	0.94	535.12	1271	26.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2618708.695
5573540	10/12/2009	624	0.94	535.12	1271	26.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2618708.695
5573540	6/29/2009	621	0.94	532.30	1273	26.6040%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2604908.472
5573540	7/4/2009	619	0.94	530.42	1274	26.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2595708.324
5573540	9/13/2008	619	0.94	530.42	1274	26.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2595708.324
5573540	5/4/2007	618	0.94	529.48	1276	26.6667%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2591108.249
5573540	10/24/2001	617	0.94	528.54	1277	26.6876%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2586508.175
5573540	6/3/2000	616	0.94	527.60	1278	26.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2581908.101
5573540	9/24/2014	616	0.94	527.60	1278	26.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2581908.101
5573540	5/20/2013	615	0.94	526.66	1280	26.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2577308.027

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/18/2013	615	0.94	526.66	1280	26.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2577308.027
5573540	10/7/1993	614	0.94	525.72	1282	26.7921%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2572707.953
5573540	5/19/2003	613	0.94	524.78	1283	26.8130%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2568107.878
5573540	8/30/2006	613	0.94	524.78	1283	26.8130%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2568107.878
5573540	5/19/1998	610	0.94	521.96	1285	26.8548%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2554307.656
5573540	5/20/2003	610	0.94	521.96	1285	26.8548%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2554307.656
5573540	5/7/1999	608	0.94	520.08	1287	26.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2545107.507
5573540	5/10/1999	608	0.94	520.08	1287	26.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2545107.507
5573540	6/27/2004	607	0.94	519.14	1289	26.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2540507.433
5573540	6/27/1997	605	0.94	517.26	1290	26.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2531307.284
5573540	9/21/2014	605	0.94	517.26	1290	26.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2531307.284
5573540	7/28/1990	604	0.94	516.32	1292	27.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2526707.21
5573540	10/9/2008	603	0.94	515.38	1293	27.0219%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2522107.136
5573540	6/13/2013	602	0.94	514.44	1294	27.0428%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2517507.062
5573540	6/7/2015	601	0.94	513.50	1295	27.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2512906.987
5573540	6/9/1994	600	0.94	512.56	1296	27.0846%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2508306.913
5573540	6/26/2004	599	0.94	511.62	1297	27.1055%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2503706.839
5573540	6/28/2004	599	0.94	511.62	1297	27.1055%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2503706.839
5573540	9/25/2014	599	0.94	511.62	1297	27.1055%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2503706.839
5573540	10/24/2008	599	0.94	511.62	1297	27.1055%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2503706.839
5573540	5/8/2010	598	0.94	510.68	1301	27.1891%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2499106.765
5573540	7/25/2008	598	0.94	510.68	1301	27.1891%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2499106.765
5573540	5/18/1994	596	0.94	508.80	1303	27.2309%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2489906.616
5573540	5/30/2014	596	0.94	508.80	1303	27.2309%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2489906.616
5573540	6/16/2009	596	0.94	508.80	1303	27.2309%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2489906.616
5573540	5/2/1991	595	0.94	507.86	1306	27.2936%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2485306.542
5573540	6/21/1997	595	0.94	507.86	1306	27.2936%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2485306.542
5573540	10/17/2009	594	0.94	506.92	1308	27.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2480706.468
5573540	7/13/1998	593	0.94	505.98	1309	27.3563%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2476106.393
5573540	8/5/1998	592	0.94	505.04	1310	27.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2471506.319
5573540	5/1/2004	590	0.94	503.16	1311	27.3981%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2462306.171
5573540	10/22/2004	590	0.94	503.16	1311	27.3981%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2462306.171

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/23/1999	589	0.94	502.22	1313	27.4399%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2457706.097
5573540	6/26/2007	589	0.94	502.22	1313	27.4399%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2457706.097
5573540	8/3/1993	589	0.94	502.22	1313	27.4399%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2457706.097
5573540	5/7/2008	588	0.94	501.28	1316	27.5026%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2453106.022
5573540	7/13/1990	588	0.94	501.28	1316	27.5026%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2453106.022
5573540	5/3/1999	587	0.94	500.34	1318	27.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2448505.948
5573540	5/23/1999	587	0.94	500.34	1318	27.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2448505.948
5573540	7/9/2000	585	0.94	498.46	1320	27.5862%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2439305.8
5573540	6/25/1996	584	0.94	497.52	1321	27.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2434705.725
5573540	7/15/2013	584	0.94	497.52	1321	27.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2434705.725
5573540	5/2/2014	583	0.94	496.58	1323	27.6489%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2430105.651
5573540	6/3/2002	583	0.94	496.58	1323	27.6489%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2430105.651
5573540	7/13/2009	583	0.94	496.58	1323	27.6489%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2430105.651
5573540	5/11/1999	581	0.94	494.70	1326	27.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2420905.503
5573540	5/7/2010	581	0.94	494.70	1326	27.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2420905.503
5573540	8/12/1995	581	0.94	494.70	1326	27.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2420905.503
5573540	6/7/1995	580	0.94	493.76	1329	27.7743%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2416305.428
5573540	6/25/1994	579	0.94	492.82	1330	27.7952%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2411705.354
5573540	6/14/2001	578	0.94	491.88	1331	27.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2407105.28
5573540	6/30/2014	578	0.94	491.88	1331	27.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2407105.28
5573540	6/6/2000	577	0.94	490.94	1333	27.8579%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2402505.206
5573540	5/3/2014	575	0.94	489.06	1334	27.8788%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2393305.057
5573540	7/15/1990	575	0.94	489.06	1334	27.8788%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2393305.057
5573540	9/5/2010	575	0.94	489.06	1334	27.8788%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2393305.057
5573540	10/19/2006	575	0.94	489.06	1334	27.8788%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2393305.057
5573540	8/7/1995	574	0.94	488.12	1338	27.9624%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2388704.983
5573540	7/4/2011	573	0.94	487.18	1339	27.9833%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2384104.909
5573540	5/14/1993	572	0.94	486.24	1340	28.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2379504.834
5573540	5/20/2006	572	0.94	486.24	1340	28.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2379504.834
5573540	5/3/2010	571	0.94	485.30	1342	28.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2374904.76
5573540	6/18/2014	571	0.94	485.30	1342	28.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2374904.76
5573540	8/9/1993	571	0.94	485.30	1342	28.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2374904.76

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/14/2006	570	0.94	484.36	1345	28.1087%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2370304.686
5573540	6/20/1997	570	0.94	484.36	1345	28.1087%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2370304.686
5573540	5/19/2006	569	0.94	483.42	1347	28.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2365704.612
5573540	6/10/1995	569	0.94	483.42	1347	28.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2365704.612
5573540	10/24/2006	569	0.94	483.42	1347	28.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2365704.612
5573540	5/24/2011	568	0.94	482.48	1350	28.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2361104.537
5573540	7/1/1999	568	0.94	482.48	1350	28.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2361104.537
5573540	5/31/1991	567	0.94	481.54	1352	28.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2356504.463
5573540	7/18/2004	567	0.94	481.54	1352	28.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2356504.463
5573540	6/18/2000	566	0.94	480.60	1354	28.2968%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2351904.389
5573540	5/15/2000	565	0.94	479.66	1355	28.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2347304.315
5573540	7/2/1999	565	0.94	479.66	1355	28.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2347304.315
5573540	5/17/2013	564	0.94	478.72	1357	28.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2342704.241
5573540	6/22/1991	562	0.94	476.84	1358	28.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2333504.092
5573540	5/30/1991	561	0.94	475.90	1359	28.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2328904.018
5573540	5/9/2010	561	0.94	475.90	1359	28.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2328904.018
5573540	5/18/2006	560	0.94	474.96	1361	28.4431%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2324303.944
5573540	5/11/1990	559	0.94	474.02	1362	28.4639%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2319703.869
5573540	5/17/2006	559	0.94	474.02	1362	28.4639%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2319703.869
5573540	6/8/1992	559	0.94	474.02	1362	28.4639%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2319703.869
5573540	5/12/2012	558	0.94	473.08	1365	28.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2315103.795
5573540	7/4/2010	558	0.94	473.08	1365	28.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2315103.795
5573540	7/7/2015	558	0.94	473.08	1365	28.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2315103.795
5573540	9/21/2015	558	0.94	473.08	1365	28.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2315103.795
5573540	6/26/2002	557	0.94	472.14	1369	28.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2310503.721
5573540	9/1/2006	557	0.94	472.14	1369	28.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2310503.721
5573540	6/29/2004	556	0.94	471.20	1371	28.6520%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2305903.647
5573540	6/14/2013	556	0.94	471.20	1371	28.6520%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2305903.647
5573540	5/10/2011	555	0.94	470.26	1373	28.6938%	Fecal_coliform	5	cfu/100mL	200	283.2	57532.58931	2301303.572
5573540	6/24/1999	555	0.94	470.26	1373	28.6938%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2301303.572
5573540	10/8/2008	555	0.94	470.26	1373	28.6938%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2301303.572
5573540	10/24/1990	552	0.94	467.44	1376	28.7565%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2287503.35

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/23/2014	551	0.94	466.50	1377	28.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2282903.275
5573540	6/10/2002	550	0.94	465.56	1378	28.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2278303.201
5573540	7/5/2008	549	0.94	464.62	1379	28.8192%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2273703.127
5573540	5/21/2006	548	0.94	463.68	1380	28.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2269103.053
5573540	10/30/2008	548	0.94	463.68	1380	28.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2269103.053
5573540	6/4/2006	547	0.94	462.74	1382	28.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2264502.978
5573540	7/28/2010	547	0.94	462.74	1382	28.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2264502.978
5573540	9/2/2004	546	0.94	461.80	1384	28.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2259902.904
5573540	7/3/2000	543	0.94	458.98	1385	28.9446%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2246102.681
5573540	7/4/2000	543	0.94	458.98	1385	28.9446%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2246102.681
5573540	7/19/2003	542	0.94	458.04	1387	28.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2241502.607
5573540	8/24/2014	542	0.94	458.04	1387	28.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2241502.607
5573540	10/25/2004	542	0.94	458.04	1387	28.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2241502.607
5573540	10/31/2008	542	0.94	458.04	1387	28.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2241502.607
5573540	5/9/1999	540	0.94	456.16	1391	29.0700%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2232302.459
5573540	9/22/2014	540	0.94	456.16	1391	29.0700%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2232302.459
5573540	5/9/2006	538	0.94	454.28	1393	29.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2223102.31
5573540	8/18/2006	538	0.94	454.28	1393	29.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2223102.31
5573540	5/6/2007	537	0.94	453.34	1395	29.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2218502.236
5573540	5/24/2008	537	0.94	453.34	1395	29.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2218502.236
5573540	6/15/1993	536	0.94	452.40	1397	29.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2213902.162
5573540	6/22/1995	535	0.94	451.46	1398	29.2163%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2209302.088
5573540	5/24/1999	534	0.94	450.52	1399	29.2372%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2204702.013
5573540	5/4/2008	532	0.94	448.64	1400	29.2581%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2195501.865
5573540	7/22/2014	531	0.94	447.70	1401	29.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2190901.791
5573540	8/6/1992	530	0.94	446.76	1402	29.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2186301.716
5573540	6/7/2000	529	0.94	445.82	1403	29.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2181701.642
5573540	6/28/2002	529	0.94	445.82	1403	29.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2181701.642
5573540	5/29/1991	528	0.94	444.88	1405	29.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2177101.568
5573540	6/26/1997	528	0.94	444.88	1405	29.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2177101.568
5573540	6/23/2013	528	0.94	444.88	1405	29.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2177101.568
5573540	5/8/1999	527	0.94	443.94	1408	29.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2172501.494

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/20/2003	525	0.94	442.06	1409	29.4462%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2163301.345
5573540	5/26/1999	524	0.94	441.12	1410	29.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2158701.271
5573540	6/16/2005	524	0.94	441.12	1410	29.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2158701.271
5573540	6/28/2007	521	0.94	438.30	1412	29.5089%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2144901.048
5573540	5/12/2005	520	0.94	437.36	1413	29.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2140300.974
5573540	7/26/2008	520	0.94	437.36	1413	29.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2140300.974
5573540	8/4/1993	520	0.94	437.36	1413	29.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2140300.974
5573540	5/22/2006	518	0.94	435.48	1416	29.5925%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2131100.825
5573540	5/11/2006	517	0.94	434.54	1417	29.6134%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2126500.751
5573540	7/2/2000	517	0.94	434.54	1417	29.6134%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2126500.751
5573540	7/1/2000	516	0.94	433.60	1419	29.6552%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2121900.677
5573540	6/30/1996	515	0.94	432.66	1420	29.6761%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2117300.603
5573540	7/18/2003	515	0.94	432.66	1420	29.6761%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2117300.603
5573540	5/5/1990	514	0.94	431.72	1422	29.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2112700.529
5573540	6/19/1993	514	0.94	431.72	1422	29.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2112700.529
5573540	5/21/1999	511	0.94	428.90	1424	29.7597%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2098900.306
5573540	5/13/2006	508	0.94	426.08	1425	29.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2085100.083
5573540	5/19/2013	508	0.94	426.08	1425	29.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2085100.083
5573540	6/22/1999	508	0.94	426.08	1425	29.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2085100.083
5573540	9/11/2014	508	0.94	426.08	1425	29.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2085100.083
5573540	5/14/2000	505	0.94	423.26	1429	29.8642%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2071299.86
5573540	6/5/2006	505	0.94	423.26	1429	29.8642%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2071299.86
5573540	6/20/2014	505	0.94	423.26	1429	29.8642%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2071299.86
5573540	10/28/2001	505	0.94	423.26	1429	29.8642%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2071299.86
5573540	5/27/1994	504	0.94	422.32	1433	29.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2066699.786
5573540	6/16/1993	503	0.94	421.38	1434	29.9687%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2062099.712
5573540	6/12/2013	502	0.94	420.44	1435	29.9896%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2057499.638
5573540	9/3/1993	502	0.94	420.44	1435	29.9896%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2057499.638
5573540	10/6/2000	502	0.94	420.44	1435	29.9896%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2057499.638
5573540	8/2/1993	501	0.94	419.50	1438	30.0522%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2052899.563
5573540	5/8/1992	500	0.94	418.56	1439	30.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2048299.489
5573540	5/10/1992	500	0.94	418.56	1439	30.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2048299.489

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/5/2002	500	0.94	418.56	1439	30.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2048299.489
5573540	7/5/2010	500	0.94	418.56	1439	30.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2048299.489
5573540	8/6/1998	497	0.94	415.74	1443	30.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2034499.266
5573540	9/1/2003	495	0.94	413.86	1444	30.1776%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2025299.118
5573540	5/25/2013	494	0.94	412.92	1445	30.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2020699.044
5573540	6/30/2000	494	0.94	412.92	1445	30.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2020699.044
5573540	5/22/2003	493	0.94	411.98	1447	30.2403%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2016098.969
5573540	5/1/2008	491	0.94	410.10	1448	30.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2006898.821
5573540	7/17/2009	490	0.94	409.16	1449	30.2821%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2002298.747
5573540	10/23/2014	490	0.94	409.16	1449	30.2821%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2002298.747
5573540	7/1/1995	489	0.94	408.22	1451	30.3239%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1997698.673
5573540	7/12/1998	489	0.94	408.22	1451	30.3239%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1997698.673
5573540	6/21/2014	488	0.94	407.28	1453	30.3657%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1993098.598
5573540	8/26/1993	487	0.94	406.34	1454	30.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1988498.524
5573540	8/13/1995	487	0.94	406.34	1454	30.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1988498.524
5573540	6/29/2002	486	0.94	405.40	1456	30.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1983898.45
5573540	7/2/1995	486	0.94	405.40	1456	30.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1983898.45
5573540	7/3/1999	486	0.94	405.40	1456	30.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1983898.45
5573540	10/11/2014	486	0.94	405.40	1456	30.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1983898.45
5573540	5/2/2004	485	0.94	404.46	1460	30.5120%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1979298.376
5573540	7/28/2008	485	0.94	404.46	1460	30.5120%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1979298.376
5573540	6/28/1997	484	0.94	403.52	1462	30.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1974698.301
5573540	7/10/2014	484	0.94	403.52	1462	30.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1974698.301
5573540	9/13/1993	484	0.94	403.52	1462	30.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1974698.301
5573540	5/18/1999	483	0.94	402.58	1465	30.6165%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1970098.227
5573540	7/20/1992	483	0.94	402.58	1465	30.6165%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1970098.227
5573540	10/10/2008	482	0.94	401.64	1467	30.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1965498.153
5573540	7/2/2008	481	0.94	400.70	1468	30.6792%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1960898.079
5573540	7/23/2013	481	0.94	400.70	1468	30.6792%	Fecal_coliform	5	cfu/100mL	200	283.2	49022.45197	1960898.079
5573540	5/19/1993	480	0.94	399.76	1470	30.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1956298.004
5573540	6/17/2000	480	0.94	399.76	1470	30.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1956298.004
5573540	7/4/1999	480	0.94	399.76	1470	30.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1956298.004

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/24/2003	479	0.94	398.82	1473	30.7837%	Fecal_coliform	10	cfu/100mL	200	283.2	97584.89651	1951697.93
5573540	10/11/2009	479	0.94	398.82	1473	30.7837%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1951697.93
5573540	5/25/1993	478	0.94	397.88	1475	30.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1947097.856
5573540	5/4/1999	477	0.94	396.94	1476	30.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1942497.782
5573540	6/27/2002	477	0.94	396.94	1476	30.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1942497.782
5573540	10/12/2014	477	0.94	396.94	1476	30.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1942497.782
5573540	6/5/2000	476	0.94	396.00	1479	30.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1937897.707
5573540	5/25/1999	475	0.94	395.06	1480	30.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1933297.633
5573540	6/24/2008	475	0.94	395.06	1480	30.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1933297.633
5573540	7/5/1999	475	0.94	395.06	1480	30.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1933297.633
5573540	7/10/2000	475	0.94	395.06	1480	30.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1933297.633
5573540	7/3/1995	474	0.94	394.12	1484	31.0136%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1928697.559
5573540	8/7/2003	474	0.94	394.12	1484	31.0136%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1928697.559
5573540	6/15/2013	473	0.94	393.18	1486	31.0554%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1924097.485
5573540	8/11/1995	473	0.94	393.18	1486	31.0554%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1924097.485
5573540	5/12/1999	472	0.94	392.24	1488	31.0972%	Fecal_coliform	20	cfu/100mL	200	283.2	191949.741	1919497.41
5573540	6/21/2003	472	0.94	392.24	1488	31.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1919497.41
5573540	9/22/2015	472	0.94	392.24	1488	31.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1919497.41
5573540	10/28/2014	472	0.94	392.24	1488	31.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1919497.41
5573540	8/29/1992	471	0.94	391.30	1492	31.1808%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1914897.336
5573540	10/10/2009	471	0.94	391.30	1492	31.1808%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1914897.336
5573540	7/8/2009	470	0.94	390.36	1494	31.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1910297.262
5573540	9/26/2014	470	0.94	390.36	1494	31.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1910297.262
5573540	5/16/1993	469	0.94	389.42	1496	31.2644%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1905697.188
5573540	7/8/2004	469	0.94	389.42	1496	31.2644%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1905697.188
5573540	6/2/1993	468	0.94	388.48	1498	31.3062%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1901097.113
5573540	6/19/1997	468	0.94	388.48	1498	31.3062%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1901097.113
5573540	5/18/2013	467	0.94	387.54	1500	31.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1896497.039
5573540	5/4/2014	467	0.94	387.54	1500	31.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1896497.039
5573540	6/30/1995	467	0.94	387.54	1500	31.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1896497.039
5573540	5/10/2006	466	0.94	386.60	1503	31.4107%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1891896.965
5573540	7/1/1996	465	0.94	385.66	1504	31.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1887296.891

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/26/2014	464	0.94	384.72	1505	31.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1882696.817
5573540	6/17/2005	463	0.94	383.78	1506	31.4734%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1878096.742
5573540	7/3/2009	463	0.94	383.78	1506	31.4734%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1878096.742
5573540	7/6/2015	463	0.94	383.78	1506	31.4734%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1878096.742
5573540	10/25/2014	463	0.94	383.78	1506	31.4734%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1878096.742
5573540	10/29/2014	463	0.94	383.78	1506	31.4734%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1878096.742
5573540	5/28/1994	462	0.94	382.84	1511	31.5778%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1873496.668
5573540	6/26/2008	461	0.94	381.90	1512	31.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1868896.594
5573540	7/15/1998	461	0.94	381.90	1512	31.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1868896.594
5573540	5/3/1991	460	0.94	380.96	1514	31.6405%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1864296.52
5573540	5/5/2007	459	0.94	380.02	1515	31.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1859696.445
5573540	8/15/1999	459	0.94	380.02	1515	31.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1859696.445
5573540	5/12/2006	458	0.94	379.08	1517	31.7032%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1855096.371
5573540	6/21/1999	458	0.94	379.08	1517	31.7032%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1855096.371
5573540	10/26/2006	458	0.94	379.08	1517	31.7032%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1855096.371
5573540	6/30/2002	455	0.94	376.26	1520	31.7659%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1841296.148
5573540	10/15/2009	455	0.94	376.26	1520	31.7659%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1841296.148
5573540	6/27/2003	454	0.94	375.32	1522	31.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1836696.074
5573540	5/22/1999	453	0.94	374.38	1523	31.8286%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1832096
5573540	7/4/1995	453	0.94	374.38	1523	31.8286%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1832096
5573540	7/3/2004	453	0.94	374.38	1523	31.8286%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1832096
5573540	8/30/1993	453	0.94	374.38	1523	31.8286%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1832096
5573540	7/11/2014	452	0.94	373.44	1527	31.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1827495.926
5573540	5/23/2006	451	0.94	372.50	1528	31.9331%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1822895.851
5573540	10/26/2004	450	0.94	371.56	1529	31.9540%	Fecal_coliform	85	cfu/100mL	200	283.2	772775.7053	1818295.777
5573540	7/16/2006	449	0.94	370.62	1530	31.9749%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1813695.703
5573540	5/20/2015	448	0.94	369.68	1531	31.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1809095.629
5573540	7/2/2009	448	0.94	369.68	1531	31.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1809095.629
5573540	6/15/2001	447	0.94	368.74	1533	32.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1804495.554
5573540	5/27/1999	445	0.94	366.86	1534	32.0585%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1795295.406
5573540	5/13/2012	445	0.94	366.86	1534	32.0585%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1795295.406
5573540	8/8/1992	444	0.94	365.92	1536	32.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1790695.332

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/3/2007	442	0.94	364.04	1537	32.1212%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1781495.183
5573540	10/30/2014	442	0.94	364.04	1537	32.1212%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1781495.183
5573540	5/10/1990	441	0.94	363.10	1539	32.1630%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1776895.109
5573540	7/18/2009	441	0.94	363.10	1539	32.1630%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1776895.109
5573540	7/7/2013	441	0.94	363.10	1539	32.1630%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1776895.109
5573540	5/3/1992	440	0.94	362.16	1542	32.2257%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1772295.035
5573540	6/22/2003	440	0.94	362.16	1542	32.2257%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1772295.035
5573540	8/5/1993	440	0.94	362.16	1542	32.2257%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1772295.035
5573540	10/24/2014	440	0.94	362.16	1542	32.2257%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1772295.035
5573540	5/29/1994	439	0.94	361.22	1546	32.3093%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1767694.961
5573540	5/29/2014	439	0.94	361.22	1546	32.3093%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1767694.961
5573540	7/12/2006	439	0.94	361.22	1546	32.3093%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1767694.961
5573540	7/7/2010	439	0.94	361.22	1546	32.3093%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1767694.961
5573540	9/2/2006	439	0.94	361.22	1546	32.3093%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1767694.961
5573540	5/31/2006	438	0.94	360.28	1551	32.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1763094.886
5573540	7/16/2009	438	0.94	360.28	1551	32.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1763094.886
5573540	10/31/2014	437	0.94	359.34	1553	32.4556%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1758494.812
5573540	6/17/1994	434	0.94	356.52	1554	32.4765%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1744694.589
5573540	6/19/2014	434	0.94	356.52	1554	32.4765%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1744694.589
5573540	5/9/2008	433	0.94	355.58	1556	32.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1740094.515
5573540	5/21/2015	433	0.94	355.58	1556	32.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1740094.515
5573540	7/8/2013	433	0.94	355.58	1556	32.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1740094.515
5573540	6/16/2014	432	0.94	354.64	1559	32.5810%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1735494.441
5573540	7/6/2013	432	0.94	354.64	1559	32.5810%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1735494.441
5573540	5/23/2011	430	0.94	352.76	1561	32.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1726294.292
5573540	7/6/2010	430	0.94	352.76	1561	32.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1726294.292
5573540	7/24/2010	430	0.94	352.76	1561	32.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1726294.292
5573540	10/27/2014	430	0.94	352.76	1561	32.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1726294.292
5573540	6/7/1998	429	0.94	351.82	1565	32.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1721694.218
5573540	6/1/1999	429	0.94	351.82	1565	32.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1721694.218
5573540	6/16/2001	429	0.94	351.82	1565	32.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1721694.218
5573540	6/30/2003	429	0.94	351.82	1565	32.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1721694.218

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/16/2000	428	0.94	350.88	1569	32.7900%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1717094.144
5573540	6/27/2007	427	0.94	349.94	1570	32.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1712494.07
5573540	5/2/2000	426	0.94	349.00	1571	32.8318%	Fecal_coliform	10	cfu/100mL	200	283.2	85394.69977	1707893.995
5573540	8/12/1993	426	0.94	349.00	1571	32.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1707893.995
5573540	9/3/2010	425	0.94	348.06	1573	32.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1703293.921
5573540	5/30/1994	423	0.94	346.18	1574	32.8945%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1694093.773
5573540	5/1/2005	423	0.94	346.18	1574	32.8945%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1694093.773
5573540	5/3/2008	423	0.94	346.18	1574	32.8945%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1694093.773
5573540	9/6/2008	423	0.94	346.18	1574	32.8945%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1694093.773
5573540	10/23/1990	423	0.94	346.18	1574	32.8945%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1694093.773
5573540	9/28/2008	422	0.94	345.24	1579	32.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1689493.698
5573540	10/11/2008	422	0.94	345.24	1579	32.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1689493.698
5573540	5/2/1992	420	0.94	343.36	1581	33.0408%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1680293.55
5573540	7/9/2013	419	0.94	342.42	1582	33.0617%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1675693.476
5573540	9/27/2008	418	0.94	341.48	1583	33.0825%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1671093.401
5573540	5/12/2007	416	0.94	339.60	1584	33.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1661893.253
5573540	6/17/2001	415	0.94	338.66	1585	33.1243%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1657293.179
5573540	8/9/1992	415	0.94	338.66	1585	33.1243%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1657293.179
5573540	6/23/1997	414	0.94	337.72	1587	33.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1652693.105
5573540	10/17/2006	414	0.94	337.72	1587	33.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1652693.105
5573540	5/24/2006	412	0.94	335.84	1589	33.2079%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1643492.956
5573540	6/29/1993	412	0.94	335.84	1589	33.2079%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1643492.956
5573540	9/29/2008	412	0.94	335.84	1589	33.2079%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1643492.956
5573540	5/26/2014	411	0.94	334.90	1592	33.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1638892.882
5573540	7/2/2004	411	0.94	334.90	1592	33.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1638892.882
5573540	5/4/1992	410	0.94	333.96	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1634292.808
5573540	5/5/1992	410	0.94	333.96	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1634292.808
5573540	5/29/2006	410	0.94	333.96	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1634292.808
5573540	5/19/2015	410	0.94	333.96	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1634292.808
5573540	6/8/1998	410	0.94	333.96	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1634292.808
5573540	6/30/2009	410	0.94	333.96	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1634292.808
5573540	6/17/2014	408	0.94	332.08	1600	33.4378%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1625092.659

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/21/1992	408	0.94	332.08	1600	33.4378%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1625092.659
5573540	10/2/2014	408	0.94	332.08	1600	33.4378%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1625092.659
5573540	6/24/1994	407	0.94	331.14	1603	33.5005%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1620492.585
5573540	5/20/1993	405	0.94	329.26	1604	33.5214%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1611292.436
5573540	6/22/2014	405	0.94	329.26	1604	33.5214%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1611292.436
5573540	5/23/1994	404	0.94	328.32	1606	33.5632%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1606692.362
5573540	6/13/2000	404	0.94	328.32	1606	33.5632%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1606692.362
5573540	8/30/1992	404	0.94	328.32	1606	33.5632%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1606692.362
5573540	10/19/2001	403	0.94	327.38	1609	33.6259%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1602092.288
5573540	7/29/1990	401	0.94	325.50	1610	33.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1592892.139
5573540	7/9/2003	401	0.94	325.50	1610	33.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1592892.139
5573540	5/2/2005	400	0.94	324.56	1612	33.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1588292.065
5573540	6/10/2000	400	0.94	324.56	1612	33.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1588292.065
5573540	6/4/2000	398	0.94	322.68	1614	33.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1579091.917
5573540	7/4/2004	398	0.94	322.68	1614	33.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1579091.917
5573540	7/23/2014	398	0.94	322.68	1614	33.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1579091.917
5573540	7/24/2014	397	0.94	321.74	1617	33.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1574491.842
5573540	8/7/1992	397	0.94	321.74	1617	33.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1574491.842
5573540	9/7/2009	397	0.94	321.74	1617	33.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1574491.842
5573540	6/17/1993	396	0.94	320.80	1620	33.8558%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1569891.768
5573540	6/26/1994	396	0.94	320.80	1620	33.8558%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1569891.768
5573540	7/7/2004	396	0.94	320.80	1620	33.8558%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1569891.768
5573540	6/26/1996	395	0.94	319.86	1623	33.9185%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1565291.694
5573540	8/2/2006	395	0.94	319.86	1623	33.9185%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1565291.694
5573540	5/8/2004	394	0.94	318.92	1625	33.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1560691.62
5573540	5/11/2007	392	0.94	317.04	1626	33.9812%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1551491.471
5573540	6/18/1993	392	0.94	317.04	1626	33.9812%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1551491.471
5573540	10/26/1990	392	0.94	317.04	1626	33.9812%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1551491.471
5573540	10/27/2006	392	0.94	317.04	1626	33.9812%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1551491.471
5573540	6/25/2008	391	0.94	316.10	1630	34.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1546891.397
5573540	7/19/2009	391	0.94	316.10	1630	34.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1546891.397
5573540	5/6/1992	390	0.94	315.16	1632	34.1066%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1542291.323

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/30/2006	390	0.94	315.16	1632	34.1066%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1542291.323
5573540	7/1/2009	389	0.94	314.22	1634	34.1484%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1537691.249
5573540	7/16/2013	387	0.94	312.34	1635	34.1693%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1528491.1
5573540	7/20/2015	386	0.94	311.40	1636	34.1902%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1523891.026
5573540	6/8/1994	385	0.94	310.46	1637	34.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1519290.952
5573540	6/29/1997	385	0.94	310.46	1637	34.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1519290.952
5573540	6/25/2002	385	0.94	310.46	1637	34.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1519290.952
5573540	5/13/2004	384	0.94	309.52	1640	34.2738%	Fecal_coliform	70	cfu/100mL	200	283.2	530141.8071	1514690.877
5573540	10/12/2008	384	0.94	309.52	1640	34.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1514690.877
5573540	5/30/1999	383	0.94	308.58	1642	34.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1510090.803
5573540	5/31/1999	383	0.94	308.58	1642	34.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1510090.803
5573540	5/3/2005	383	0.94	308.58	1642	34.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1510090.803
5573540	7/18/1990	383	0.94	308.58	1642	34.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1510090.803
5573540	5/24/1993	382	0.94	307.64	1646	34.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1505490.729
5573540	5/29/1999	382	0.94	307.64	1646	34.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1505490.729
5573540	6/4/2001	382	0.94	307.64	1646	34.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1505490.729
5573540	7/5/2004	381	0.94	306.70	1649	34.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1500890.655
5573540	7/14/2000	380	0.94	305.76	1650	34.4828%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1496290.58
5573540	7/9/2011	380	0.94	305.76	1650	34.4828%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1496290.58
5573540	5/9/1997	378	0.94	303.88	1652	34.5246%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1487090.432
5573540	5/14/2013	377	0.94	302.94	1653	34.5455%	Fecal_coliform	60	cfu/100mL	200	283.2	444747.1073	1482490.358
5573540	5/28/2014	377	0.94	302.94	1653	34.5455%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1482490.358
5573540	6/23/2001	377	0.94	302.94	1653	34.5455%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1482490.358
5573540	7/14/2009	377	0.94	302.94	1653	34.5455%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1482490.358
5573540	6/24/2001	376	0.94	302.00	1657	34.6290%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1477890.283
5573540	5/10/2015	375	0.94	301.06	1658	34.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1473290.209
5573540	6/25/2001	375	0.94	301.06	1658	34.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1473290.209
5573540	7/19/2004	375	0.94	301.06	1658	34.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1473290.209
5573540	10/16/2008	375	0.94	301.06	1658	34.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1473290.209
5573540	8/29/2014	374	0.94	300.12	1662	34.7335%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1468690.135
5573540	5/15/1997	373	0.94	299.18	1663	34.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1464090.061
5573540	6/10/1994	373	0.94	299.18	1663	34.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1464090.061

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/20/2000	372	0.94	298.24	1665	34.7962%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1459489.986
5573540	6/30/2004	372	0.94	298.24	1665	34.7962%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1459489.986
5573540	8/3/2006	372	0.94	298.24	1665	34.7962%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1459489.986
5573540	5/12/1997	371	0.94	297.30	1668	34.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1454889.912
5573540	6/26/2001	371	0.94	297.30	1668	34.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1454889.912
5573540	9/8/2008	370	0.94	296.36	1670	34.9007%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1450289.838
5573540	7/8/2011	369	0.94	295.42	1671	34.9216%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1445689.764
5573540	10/31/1992	369	0.94	295.42	1671	34.9216%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1445689.764
5573540	8/6/2003	368	0.94	294.48	1673	34.9634%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1441089.689
5573540	5/14/1997	367	0.94	293.54	1674	34.9843%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1436489.615
5573540	6/14/1991	367	0.94	293.54	1674	34.9843%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1436489.615
5573540	7/30/1990	367	0.94	293.54	1674	34.9843%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1436489.615
5573540	7/6/2007	367	0.94	293.54	1674	34.9843%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1436489.615
5573540	5/21/2005	366	0.94	292.60	1678	35.0679%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1431889.541
5573540	6/11/1992	366	0.94	292.60	1678	35.0679%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1431889.541
5573540	6/11/2000	366	0.94	292.60	1678	35.0679%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1431889.541
5573540	5/30/2007	365	0.94	291.66	1681	35.1306%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1427289.467
5573540	5/28/1999	363	0.94	289.78	1682	35.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1418089.318
5573540	5/9/2015	363	0.94	289.78	1682	35.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1418089.318
5573540	6/22/2001	363	0.94	289.78	1682	35.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1418089.318
5573540	7/9/2004	363	0.94	289.78	1682	35.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1418089.318
5573540	5/11/1997	362	0.94	288.84	1686	35.2351%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1413489.244
5573540	5/23/2003	362	0.94	288.84	1686	35.2351%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1413489.244
5573540	5/27/2003	362	0.94	288.84	1686	35.2351%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1413489.244
5573540	7/10/1990	362	0.94	288.84	1686	35.2351%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1413489.244
5573540	7/23/2015	361	0.94	287.90	1690	35.3187%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1408889.17
5573540	5/4/2005	360	0.94	286.96	1691	35.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1404289.096
5573540	7/3/1997	360	0.94	286.96	1691	35.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1404289.096
5573540	6/3/1994	358	0.94	285.08	1693	35.3814%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1395088.947
5573540	6/9/2000	357	0.94	284.14	1694	35.4023%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1390488.873
5573540	7/16/1998	357	0.94	284.14	1694	35.4023%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1390488.873
5573540	7/25/2014	357	0.94	284.14	1694	35.4023%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1390488.873

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/23/1992	355	0.94	282.26	1697	35.4650%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1381288.724
5573540	7/30/2008	355	0.94	282.26	1697	35.4650%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1381288.724
5573540	8/31/2006	355	0.94	282.26	1697	35.4650%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1381288.724
5573540	9/27/2014	355	0.94	282.26	1697	35.4650%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1381288.724
5573540	5/6/1990	353	0.94	280.38	1701	35.5486%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1372088.576
5573540	7/15/2009	353	0.94	280.38	1701	35.5486%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1372088.576
5573540	6/18/2005	351	0.94	278.50	1703	35.5904%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1362888.427
5573540	7/17/2000	351	0.94	278.50	1703	35.5904%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1362888.427
5573540	5/7/2007	350	0.94	277.56	1705	35.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1358288.353
5573540	6/3/2003	350	0.94	277.56	1705	35.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1358288.353
5573540	7/8/1999	350	0.94	277.56	1705	35.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1358288.353
5573540	7/22/2015	350	0.94	277.56	1705	35.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1358288.353
5573540	8/22/1995	350	0.94	277.56	1705	35.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1358288.353
5573540	7/4/1996	349	0.94	276.62	1710	35.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1353688.279
5573540	5/15/1993	348	0.94	275.68	1711	35.7576%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1349088.205
5573540	5/13/1997	348	0.94	275.68	1711	35.7576%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1349088.205
5573540	7/8/2010	348	0.94	275.68	1711	35.7576%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1349088.205
5573540	7/29/2014	348	0.94	275.68	1711	35.7576%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1349088.205
5573540	9/30/2008	348	0.94	275.68	1711	35.7576%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1349088.205
5573540	5/14/1992	347	0.94	274.74	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1344488.13
5573540	5/19/2000	347	0.94	274.74	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1344488.13
5573540	6/3/1991	347	0.94	274.74	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1344488.13
5573540	6/26/2003	347	0.94	274.74	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1344488.13
5573540	7/6/1997	347	0.94	274.74	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1344488.13
5573540	9/6/2003	347	0.94	274.74	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1344488.13
5573540	7/25/1996	346	0.94	273.80	1722	35.9875%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1339888.056
5573540	8/19/2014	346	0.94	273.80	1722	35.9875%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1339888.056
5573540	10/6/1993	346	0.94	273.80	1722	35.9875%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1339888.056
5573540	5/10/1997	344	0.94	271.92	1725	36.0502%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1330687.908
5573540	10/17/2000	344	0.94	271.92	1725	36.0502%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1330687.908
5573540	5/28/2001	343	0.94	270.98	1727	36.0920%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1326087.833
5573540	5/5/2015	343	0.94	270.98	1727	36.0920%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1326087.833

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/16/2000	343	0.94	270.98	1727	36.0920%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1326087.833
5573540	6/13/1991	341	0.94	269.10	1730	36.1546%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1316887.685
5573540	7/4/1994	341	0.94	269.10	1730	36.1546%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1316887.685
5573540	7/4/2007	341	0.94	269.10	1730	36.1546%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1316887.685
5573540	5/11/1992	340	0.94	268.16	1733	36.2173%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1312287.611
5573540	5/17/2007	340	0.94	268.16	1733	36.2173%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1312287.611
5573540	6/18/2001	340	0.94	268.16	1733	36.2173%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1312287.611
5573540	10/23/2006	340	0.94	268.16	1733	36.2173%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1312287.611
5573540	5/1/2000	339	0.94	267.22	1737	36.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1307687.537
5573540	6/29/1996	339	0.94	267.22	1737	36.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1307687.537
5573540	5/5/2005	338	0.94	266.28	1739	36.3427%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1303087.462
5573540	10/29/1990	338	0.94	266.28	1739	36.3427%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1303087.462
5573540	5/7/2004	337	0.94	265.34	1741	36.3845%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1298487.388
5573540	8/31/1993	337	0.94	265.34	1741	36.3845%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1298487.388
5573540	6/10/1992	336	0.94	264.40	1743	36.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1293887.314
5573540	6/12/2005	336	0.94	264.40	1743	36.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1293887.314
5573540	9/28/2014	335	0.94	263.46	1745	36.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1289287.24
5573540	5/16/1997	334	0.94	262.52	1746	36.4890%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1284687.165
5573540	6/8/2000	334	0.94	262.52	1746	36.4890%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1284687.165
5573540	10/29/2006	334	0.94	262.52	1746	36.4890%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1284687.165
5573540	6/15/1992	333	0.94	261.58	1749	36.5517%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1280087.091
5573540	7/25/2003	331	0.94	259.70	1750	36.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1270886.943
5573540	9/7/2003	331	0.94	259.70	1750	36.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1270886.943
5573540	5/13/2007	330	0.94	258.76	1752	36.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1266286.868
5573540	7/5/2007	330	0.94	258.76	1752	36.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1266286.868
5573540	7/26/2014	330	0.94	258.76	1752	36.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1266286.868
5573540	5/16/2007	329	0.94	257.82	1755	36.6771%	Fecal_coliform	5	cfu/100mL	200	283.2	31542.16985	1261686.794
5573540	5/10/2008	329	0.94	257.82	1755	36.6771%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1261686.794
5573540	5/25/2006	328	0.94	256.88	1757	36.7189%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1257086.72
5573540	6/28/1996	328	0.94	256.88	1757	36.7189%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1257086.72
5573540	7/5/2011	328	0.94	256.88	1757	36.7189%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1257086.72
5573540	5/29/2007	327	0.94	255.94	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1252486.646

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/22/2015	327	0.94	255.94	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1252486.646
5573540	6/24/1997	327	0.94	255.94	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1252486.646
5573540	6/2/2003	327	0.94	255.94	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1252486.646
5573540	7/24/2015	327	0.94	255.94	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1252486.646
5573540	10/28/2006	327	0.94	255.94	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1252486.646
5573540	5/22/2005	326	0.94	255.00	1766	36.9070%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1247886.571
5573540	5/9/2004	325	0.94	254.06	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1243286.497
5573540	5/4/2010	325	0.94	254.06	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1243286.497
5573540	6/10/2006	325	0.94	254.06	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1243286.497
5573540	7/5/1997	325	0.94	254.06	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1243286.497
5573540	7/15/2000	325	0.94	254.06	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1243286.497
5573540	7/28/2014	325	0.94	254.06	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1243286.497
5573540	5/3/2004	324	0.94	253.12	1773	37.0533%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1238686.423
5573540	5/2/2008	324	0.94	253.12	1773	37.0533%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1238686.423
5573540	5/27/2000	323	0.94	252.18	1775	37.0951%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1234086.349
5573540	7/5/1996	323	0.94	252.18	1775	37.0951%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1234086.349
5573540	8/7/1998	323	0.94	252.18	1775	37.0951%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1234086.349
5573540	8/2/2008	323	0.94	252.18	1775	37.0951%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1234086.349
5573540	5/31/2007	322	0.94	251.24	1779	37.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1229486.274
5573540	5/1/2014	322	0.94	251.24	1779	37.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1229486.274
5573540	7/3/1992	322	0.94	251.24	1779	37.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1229486.274
5573540	6/4/2002	319	0.94	248.42	1782	37.2414%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1215686.052
5573540	7/21/1990	319	0.94	248.42	1782	37.2414%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1215686.052
5573540	10/30/1993	319	0.94	248.42	1782	37.2414%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1215686.052
5573540	8/8/2003	318	0.94	247.48	1785	37.3041%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1211085.977
5573540	6/6/2006	317	0.94	246.54	1786	37.3250%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1206485.903
5573540	7/17/2006	316	0.94	245.60	1787	37.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1201885.829
5573540	10/22/2009	316	0.94	245.60	1787	37.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1201885.829
5573540	6/9/2006	315	0.94	244.66	1789	37.3877%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1197285.755
5573540	5/22/1992	314	0.94	243.72	1790	37.4086%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1192685.681
5573540	10/25/1990	314	0.94	243.72	1790	37.4086%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1192685.681
5573540	8/1/2008	313	0.94	242.78	1792	37.4504%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1188085.606

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/23/2005	312	0.94	241.84	1793	37.4713%	Fecal_coliform	1	cfu/100mL	200	283.2	5917.42766	1183485.532
5573540	7/27/2014	312	0.94	241.84	1793	37.4713%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1183485.532
5573540	7/17/1990	311	0.94	240.90	1795	37.5131%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1178885.458
5573540	7/31/2008	311	0.94	240.90	1795	37.5131%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1178885.458
5573540	7/20/2009	311	0.94	240.90	1795	37.5131%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1178885.458
5573540	9/29/2014	311	0.94	240.90	1795	37.5131%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1178885.458
5573540	10/28/1990	311	0.94	240.90	1795	37.5131%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1178885.458
5573540	5/7/1995	310	0.94	239.96	1800	37.6176%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1174285.384
5573540	7/4/1997	310	0.94	239.96	1800	37.6176%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1174285.384
5573540	5/6/2015	309	0.94	239.02	1802	37.6594%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1169685.309
5573540	6/29/2008	309	0.94	239.02	1802	37.6594%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1169685.309
5573540	7/7/1997	309	0.94	239.02	1802	37.6594%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1169685.309
5573540	5/23/2015	308	0.94	238.08	1805	37.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1165085.235
5573540	8/3/2008	307	0.94	237.14	1806	37.7429%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1160485.161
5573540	10/30/1992	307	0.94	237.14	1806	37.7429%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1160485.161
5573540	7/17/1998	306	0.94	236.20	1808	37.7847%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1155885.087
5573540	5/8/1990	304	0.94	234.32	1809	37.8056%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1146684.938
5573540	5/23/1992	304	0.94	234.32	1809	37.8056%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1146684.938
5573540	5/16/2000	304	0.94	234.32	1809	37.8056%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1146684.938
5573540	6/19/1994	304	0.94	234.32	1809	37.8056%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1146684.938
5573540	6/24/2002	304	0.94	234.32	1809	37.8056%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1146684.938
5573540	6/11/2006	302	0.94	232.44	1814	37.9101%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1137484.79
5573540	7/8/1990	302	0.94	232.44	1814	37.9101%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1137484.79
5573540	7/10/2011	301	0.94	231.50	1816	37.9519%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1132884.715
5573540	5/11/2004	300	0.94	230.56	1817	37.9728%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1128284.641
5573540	7/7/2007	300	0.94	230.56	1817	37.9728%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1128284.641
5573540	6/5/1991	299	0.94	229.62	1819	38.0146%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1123684.567
5573540	5/28/2003	298	0.94	228.68	1820	38.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1119084.493
5573540	5/11/2005	298	0.94	228.68	1820	38.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1119084.493
5573540	9/2/2014	298	0.94	228.68	1820	38.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1119084.493
5573540	9/30/2014	298	0.94	228.68	1820	38.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1119084.493
5573540	6/27/2008	297	0.94	227.74	1824	38.1191%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1114484.418

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/9/2009	297	0.94	227.74	1824	38.1191%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1114484.418
5573540	5/13/2005	296	0.94	226.80	1826	38.1609%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1109884.344
5573540	7/29/2010	296	0.94	226.80	1826	38.1609%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1109884.344
5573540	9/8/2009	296	0.94	226.80	1826	38.1609%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1109884.344
5573540	6/23/2014	295	0.94	225.86	1829	38.2236%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1105284.27
5573540	8/10/1995	294	0.94	224.92	1830	38.2445%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1100684.196
5573540	5/2/1995	293	0.94	223.98	1831	38.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1096084.121
5573540	5/13/2000	293	0.94	223.98	1831	38.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1096084.121
5573540	5/24/2005	293	0.94	223.98	1831	38.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1096084.121
5573540	8/15/1992	293	0.94	223.98	1831	38.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1096084.121
5573540	5/10/2004	292	0.94	223.04	1835	38.3490%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1091484.047
5573540	7/16/1990	292	0.94	223.04	1835	38.3490%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1091484.047
5573540	5/1/1990	291	0.94	222.10	1837	38.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1086883.973
5573540	5/6/2012	291	0.94	222.10	1837	38.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1086883.973
5573540	7/25/2015	291	0.94	222.10	1837	38.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1086883.973
5573540	9/6/2010	291	0.94	222.10	1837	38.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1086883.973
5573540	7/6/2008	290	0.94	221.16	1841	38.4744%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1082283.899
5573540	9/4/2008	290	0.94	221.16	1841	38.4744%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1082283.899
5573540	6/2/2014	289	0.94	220.22	1843	38.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1077683.825
5573540	8/8/2014	289	0.94	220.22	1843	38.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1077683.825
5573540	10/9/2003	289	0.94	220.22	1843	38.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1077683.825
5573540	7/22/1998	288	0.94	219.28	1846	38.5789%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1073083.75
5573540	7/1/2004	288	0.94	219.28	1846	38.5789%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1073083.75
5573540	10/15/2008	288	0.94	219.28	1846	38.5789%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1073083.75
5573540	10/22/2008	288	0.94	219.28	1846	38.5789%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1073083.75
5573540	7/19/1998	287	0.94	218.34	1850	38.6625%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1068483.676
5573540	5/26/1992	285	0.94	216.46	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1059283.528
5573540	5/18/2007	285	0.94	216.46	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1059283.528
5573540	7/18/1999	285	0.94	216.46	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1059283.528
5573540	8/16/1998	285	0.94	216.46	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1059283.528
5573540	8/24/2002	285	0.94	216.46	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1059283.528
5573540	10/27/1990	285	0.94	216.46	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1059283.528

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/18/1998	284	0.94	215.52	1857	38.8088%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1054683.453
5573540	8/9/1995	284	0.94	215.52	1857	38.8088%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1054683.453
5573540	5/12/2004	283	0.94	214.58	1859	38.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1050083.379
5573540	6/21/1991	283	0.94	214.58	1859	38.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1050083.379
5573540	8/7/2008	283	0.94	214.58	1859	38.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1050083.379
5573540	5/24/2003	282	0.94	213.64	1862	38.9133%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1045483.305
5573540	7/6/1999	282	0.94	213.64	1862	38.9133%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1045483.305
5573540	9/10/1992	282	0.94	213.64	1862	38.9133%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1045483.305
5573540	10/8/2003	282	0.94	213.64	1862	38.9133%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1045483.305
5573540	5/5/2014	281	0.94	212.70	1866	38.9969%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1040883.231
5573540	9/3/2009	281	0.94	212.70	1866	38.9969%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1040883.231
5573540	5/7/1992	280	0.94	211.76	1868	39.0387%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1036283.156
5573540	6/19/2006	280	0.94	211.76	1868	39.0387%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1036283.156
5573540	7/5/1995	280	0.94	211.76	1868	39.0387%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1036283.156
5573540	7/2/1997	280	0.94	211.76	1868	39.0387%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1036283.156
5573540	6/18/1994	279	0.94	210.82	1872	39.1223%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1031683.082
5573540	8/29/1990	279	0.94	210.82	1872	39.1223%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1031683.082
5573540	10/13/2008	279	0.94	210.82	1872	39.1223%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1031683.082
5573540	5/29/2003	278	0.94	209.88	1875	39.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1027083.008
5573540	5/30/2015	278	0.94	209.88	1875	39.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1027083.008
5573540	6/27/1996	278	0.94	209.88	1875	39.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1027083.008
5573540	6/22/1997	278	0.94	209.88	1875	39.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1027083.008
5573540	7/22/1992	278	0.94	209.88	1875	39.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1027083.008
5573540	5/26/1997	277	0.94	208.94	1880	39.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1022482.934
5573540	5/11/2000	277	0.94	208.94	1880	39.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1022482.934
5573540	6/19/2000	277	0.94	208.94	1880	39.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1022482.934
5573540	6/23/2003	276	0.94	208.00	1883	39.3521%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1017882.859
5573540	7/1/2002	276	0.94	208.00	1883	39.3521%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1017882.859
5573540	10/24/2004	276	0.94	208.00	1883	39.3521%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1017882.859
5573540	5/28/1992	275	0.94	207.06	1886	39.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1013282.785
5573540	5/17/1997	275	0.94	207.06	1886	39.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1013282.785
5573540	6/28/2003	275	0.94	207.06	1886	39.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1013282.785

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/27/1999	275	0.94	207.06	1886	39.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1013282.785
5573540	5/27/1992	274	0.94	206.12	1890	39.4984%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1008682.711
5573540	5/11/2011	274	0.94	206.12	1890	39.4984%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1008682.711
5573540	9/8/2003	274	0.94	206.12	1890	39.4984%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1008682.711
5573540	5/22/2001	273	0.94	205.18	1893	39.5611%	Fecal_coliform	20	cfu/100mL	200	283.2	100408.2637	1004082.637
5573540	5/27/2014	273	0.94	205.18	1893	39.5611%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1004082.637
5573540	5/24/2015	273	0.94	205.18	1893	39.5611%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1004082.637
5573540	8/30/1990	272	0.94	204.24	1896	39.6238%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	999482.5624
5573540	10/1/2008	272	0.94	204.24	1896	39.6238%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	999482.5624
5573540	10/23/2008	272	0.94	204.24	1896	39.6238%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	999482.5624
5573540	5/25/1992	271	0.94	203.30	1899	39.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	994882.4882
5573540	5/3/2000	271	0.94	203.30	1899	39.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	994882.4882
5573540	7/30/2014	271	0.94	203.30	1899	39.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	994882.4882
5573540	8/21/1997	271	0.94	203.30	1899	39.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	994882.4882
5573540	8/9/2003	271	0.94	203.30	1899	39.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	994882.4882
5573540	6/19/2001	270	0.94	202.36	1904	39.7910%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	990282.414
5573540	6/19/2005	270	0.94	202.36	1904	39.7910%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	990282.414
5573540	7/26/1998	270	0.94	202.36	1904	39.7910%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	990282.414
5573540	7/7/1999	270	0.94	202.36	1904	39.7910%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	990282.414
5573540	6/14/1992	269	0.94	201.42	1908	39.8746%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	985682.3397
5573540	7/8/1997	268	0.94	200.48	1909	39.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	981082.2655
5573540	5/27/2001	267	0.94	199.54	1910	39.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	976482.1912
5573540	6/6/1994	267	0.94	199.54	1910	39.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	976482.1912
5573540	7/12/1997	267	0.94	199.54	1910	39.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	976482.1912
5573540	7/15/2006	267	0.94	199.54	1910	39.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	976482.1912
5573540	8/30/2002	267	0.94	199.54	1910	39.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	976482.1912
5573540	5/29/1993	266	0.94	198.60	1915	40.0209%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	971882.117
5573540	8/10/1992	265	0.94	197.66	1916	40.0418%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	967282.0428
5573540	7/9/1997	264	0.94	196.72	1917	40.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	962681.9685
5573540	5/15/1992	263	0.94	195.78	1918	40.0836%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	958081.8943
5573540	7/11/1997	263	0.94	195.78	1918	40.0836%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	958081.8943
5573540	7/12/2010	263	0.94	195.78	1918	40.0836%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	958081.8943

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/7/1990	261	0.94	193.90	1921	40.1463%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	948881.7458
5573540	6/20/2006	261	0.94	193.90	1921	40.1463%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	948881.7458
5573540	6/7/1994	260	0.94	192.96	1923	40.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	944281.6716
5573540	7/1/2003	260	0.94	192.96	1923	40.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	944281.6716
5573540	7/26/2015	260	0.94	192.96	1923	40.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	944281.6716
5573540	10/30/2006	258	0.94	191.08	1926	40.2508%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	935081.5231
5573540	7/15/1997	257	0.94	190.14	1927	40.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	930481.4488
5573540	8/2/2014	257	0.94	190.14	1927	40.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	930481.4488
5573540	5/24/2000	256	0.94	189.20	1929	40.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	925881.3746
5573540	6/12/2000	256	0.94	189.20	1929	40.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	925881.3746
5573540	5/26/2003	255	0.94	188.26	1931	40.3553%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	921281.3004
5573540	5/15/2007	255	0.94	188.26	1931	40.3553%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	921281.3004
5573540	5/26/2015	254	0.94	187.32	1933	40.3971%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	916681.2261
5573540	6/1/2003	254	0.94	187.32	1933	40.3971%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	916681.2261
5573540	5/28/1993	253	0.94	186.38	1935	40.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	912081.1519
5573540	5/29/2001	253	0.94	186.38	1935	40.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	912081.1519
5573540	5/11/2014	253	0.94	186.38	1935	40.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	912081.1519
5573540	7/5/2002	253	0.94	186.38	1935	40.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	912081.1519
5573540	7/7/2011	253	0.94	186.38	1935	40.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	912081.1519
5573540	7/24/1996	252	0.94	185.44	1940	40.5434%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	907481.0776
5573540	8/11/1993	252	0.94	185.44	1940	40.5434%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	907481.0776
5573540	6/5/1994	251	0.94	184.50	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	902881.0034
5573540	6/16/1994	251	0.94	184.50	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	902881.0034
5573540	7/27/1998	251	0.94	184.50	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	902881.0034
5573540	7/24/2004	251	0.94	184.50	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	902881.0034
5573540	7/9/2010	251	0.94	184.50	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	902881.0034
5573540	7/13/2010	251	0.94	184.50	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	902881.0034
5573540	7/11/2010	250	0.94	183.56	1948	40.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	898280.9292
5573540	5/14/2007	249	0.94	182.62	1949	40.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	893680.8549
5573540	5/13/2011	248	0.94	181.68	1950	40.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	889080.7807
5573540	9/4/1997	248	0.94	181.68	1950	40.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	889080.7807
5573540	9/3/2004	248	0.94	181.68	1950	40.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	889080.7807

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/4/1994	247	0.94	180.74	1953	40.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	884480.7064
5573540	5/10/2000	246	0.94	179.80	1954	40.8359%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	879880.6322
5573540	6/9/2004	246	0.94	179.80	1954	40.8359%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	879880.6322
5573540	5/18/1997	245	0.94	178.86	1956	40.8777%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	875280.558
5573540	5/19/1997	245	0.94	178.86	1956	40.8777%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	875280.558
5573540	5/6/2005	244	0.94	177.92	1958	40.9195%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	870680.4837
5573540	5/10/2005	244	0.94	177.92	1958	40.9195%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	870680.4837
5573540	7/18/2000	244	0.94	177.92	1958	40.9195%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	870680.4837
5573540	5/27/1993	243	0.94	176.98	1961	40.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	866080.4095
5573540	5/19/2007	243	0.94	176.98	1961	40.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	866080.4095
5573540	7/14/2011	243	0.94	176.98	1961	40.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	866080.4095
5573540	10/17/2008	243	0.94	176.98	1961	40.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	866080.4095
5573540	5/20/1997	241	0.94	175.10	1965	41.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	856880.261
5573540	5/25/2015	241	0.94	175.10	1965	41.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	856880.261
5573540	7/10/1997	241	0.94	175.10	1965	41.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	856880.261
5573540	8/14/1992	241	0.94	175.10	1965	41.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	856880.261
5573540	6/11/1994	240	0.94	174.16	1969	41.1494%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	852280.1868
5573540	7/6/2002	240	0.94	174.16	1969	41.1494%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	852280.1868
5573540	5/31/1993	239	0.94	173.22	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	847680.1125
5573540	5/2/1997	239	0.94	173.22	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	847680.1125
5573540	5/21/1997	239	0.94	173.22	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	847680.1125
5573540	5/11/2001	239	0.94	173.22	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	847680.1125
5573540	5/20/2007	239	0.94	173.22	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	847680.1125
5573540	5/5/2012	239	0.94	173.22	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	847680.1125
5573540	8/13/1992	239	0.94	173.22	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	847680.1125
5573540	8/16/1993	239	0.94	173.22	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	847680.1125
5573540	8/14/1995	239	0.94	173.22	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	847680.1125
5573540	8/22/1997	239	0.94	173.22	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	847680.1125
5573540	8/24/2006	239	0.94	173.22	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	847680.1125
5573540	5/25/2005	238	0.94	172.28	1982	41.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	843080.0383
5573540	5/10/2007	238	0.94	172.28	1982	41.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	843080.0383
5573540	5/4/2015	238	0.94	172.28	1982	41.4211%	Fecal_coliform	31	cfu/100mL	200	283.2	130677.4059	843080.0383

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/10/2003	236	0.94	170.40	1985	41.4838%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	833879.8898
5573540	6/3/2014	235	0.94	169.46	1986	41.5047%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	829279.8156
5573540	6/8/2006	234	0.94	168.52	1987	41.5256%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	824679.7413
5573540	7/10/2010	234	0.94	168.52	1987	41.5256%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	824679.7413
5573540	8/8/1998	233	0.94	167.58	1989	41.5674%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	820079.6671
5573540	7/6/2004	232	0.94	166.64	1990	41.5883%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	815479.5928
5573540	5/21/1993	231	0.94	165.70	1991	41.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	810879.5186
5573540	5/31/1994	231	0.94	165.70	1991	41.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	810879.5186
5573540	7/21/2013	231	0.94	165.70	1991	41.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	810879.5186
5573540	5/23/2001	230	0.94	164.76	1994	41.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	806279.4444
5573540	5/31/2001	230	0.94	164.76	1994	41.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	806279.4444
5573540	7/18/2006	230	0.94	164.76	1994	41.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	806279.4444
5573540	5/12/2000	229	0.94	163.82	1997	41.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	801679.3701
5573540	5/25/2003	229	0.94	163.82	1997	41.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	801679.3701
5573540	7/21/2015	229	0.94	163.82	1997	41.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	801679.3701
5573540	10/21/2001	229	0.94	163.82	1997	41.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	801679.3701
5573540	10/23/2004	228	0.94	162.88	2001	41.8182%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	797079.2959
5573540	6/1/2007	227	0.94	161.94	2002	41.8391%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	792479.2216
5573540	7/9/1995	227	0.94	161.94	2002	41.8391%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	792479.2216
5573540	8/28/2014	227	0.94	161.94	2002	41.8391%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	792479.2216
5573540	5/21/2007	226	0.94	161.00	2005	41.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	787879.1474
5573540	7/8/1995	226	0.94	161.00	2005	41.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	787879.1474
5573540	8/9/1998	226	0.94	161.00	2005	41.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	787879.1474
5573540	8/11/1992	225	0.94	160.06	2008	41.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	783279.0732
5573540	8/5/2003	225	0.94	160.06	2008	41.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	783279.0732
5573540	8/6/2008	225	0.94	160.06	2008	41.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	783279.0732
5573540	10/31/1990	225	0.94	160.06	2008	41.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	783279.0732
5573540	5/1/1997	224	0.94	159.12	2012	42.0481%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	778678.9989
5573540	8/23/2006	224	0.94	159.12	2012	42.0481%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	778678.9989
5573540	5/25/1997	223	0.94	158.18	2014	42.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	774078.9247
5573540	5/12/2014	223	0.94	158.18	2014	42.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	774078.9247
5573540	8/28/1997	223	0.94	158.18	2014	42.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	774078.9247

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/9/2014	223	0.94	158.18	2014	42.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	774078.9247
5573540	6/21/2001	222	0.94	157.24	2018	42.1735%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	769478.8504
5573540	5/12/2001	221	0.94	156.30	2019	42.1944%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	764878.7762
5573540	7/2/1992	221	0.94	156.30	2019	42.1944%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	764878.7762
5573540	5/22/1997	220	0.94	155.36	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	760278.702
5573540	5/3/2015	220	0.94	155.36	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	760278.702
5573540	6/24/2003	220	0.94	155.36	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	760278.702
5573540	6/29/2003	220	0.94	155.36	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	760278.702
5573540	8/4/2006	220	0.94	155.36	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	760278.702
5573540	9/8/2004	220	0.94	155.36	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	760278.702
5573540	5/9/2005	219	0.94	154.42	2027	42.3615%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	755678.6277
5573540	6/5/1992	219	0.94	154.42	2027	42.3615%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	755678.6277
5573540	6/12/1994	219	0.94	154.42	2027	42.3615%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	755678.6277
5573540	10/8/1990	219	0.94	154.42	2027	42.3615%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	755678.6277
5573540	6/12/2006	217	0.94	152.54	2031	42.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	746478.4792
5573540	6/23/2007	217	0.94	152.54	2031	42.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	746478.4792
5573540	7/12/1994	217	0.94	152.54	2031	42.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	746478.4792
5573540	9/9/2003	217	0.94	152.54	2031	42.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	746478.4792
5573540	10/30/1990	217	0.94	152.54	2031	42.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	746478.4792
5573540	5/24/1997	216	0.94	151.60	2036	42.5496%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	741878.405
5573540	7/6/1995	216	0.94	151.60	2036	42.5496%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	741878.405
5573540	10/21/2008	216	0.94	151.60	2036	42.5496%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	741878.405
5573540	5/21/2000	215	0.94	150.66	2039	42.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	737278.3308
5573540	5/4/2004	215	0.94	150.66	2039	42.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	737278.3308
5573540	6/11/2003	215	0.94	150.66	2039	42.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	737278.3308
5573540	9/9/2009	215	0.94	150.66	2039	42.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	737278.3308
5573540	5/29/1992	214	0.94	149.72	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	732678.2565
5573540	6/15/1994	214	0.94	149.72	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	732678.2565
5573540	6/28/2008	214	0.94	149.72	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	732678.2565
5573540	7/7/1995	214	0.94	149.72	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	732678.2565
5573540	8/4/2015	214	0.94	149.72	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	732678.2565
5573540	9/3/1997	214	0.94	149.72	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	732678.2565

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/22/2007	213	0.94	148.78	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	728078.1823
5573540	5/10/2014	213	0.94	148.78	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	728078.1823
5573540	5/27/2015	213	0.94	148.78	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	728078.1823
5573540	6/21/2013	213	0.94	148.78	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	728078.1823
5573540	7/21/2009	213	0.94	148.78	2049	42.8213%	Fecal_coliform	45	cfu/100mL	200	283.2	163817.591	728078.1823
5573540	8/7/2014	213	0.94	148.78	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	728078.1823
5573540	10/1/2014	213	0.94	148.78	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	728078.1823
5573540	10/7/2008	212	0.94	147.84	2056	42.9676%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	723478.108
5573540	5/23/2000	211	0.94	146.90	2057	42.9885%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	718878.0338
5573540	6/6/1992	211	0.94	146.90	2057	42.9885%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	718878.0338
5573540	9/3/2006	211	0.94	146.90	2057	42.9885%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	718878.0338
5573540	5/28/2007	210	0.94	145.96	2060	43.0512%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	714277.9596
5573540	7/23/2000	209	0.94	145.02	2061	43.0721%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	709677.8853
5573540	7/20/1997	208	0.94	144.08	2062	43.0930%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	705077.8111
5573540	8/3/2014	208	0.94	144.08	2062	43.0930%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	705077.8111
5573540	7/13/1997	207	0.94	143.14	2064	43.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	700477.7368
5573540	7/23/2004	207	0.94	143.14	2064	43.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	700477.7368
5573540	7/14/2010	207	0.94	143.14	2064	43.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	700477.7368
5573540	10/2/2008	207	0.94	143.14	2064	43.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	700477.7368
5573540	10/20/2008	207	0.94	143.14	2064	43.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	700477.7368
5573540	9/23/2015	206	0.94	142.20	2069	43.2393%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	695877.6626
5573540	5/6/2010	205	0.94	141.26	2070	43.2602%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	691277.5884
5573540	5/16/2005	204	0.94	140.32	2071	43.2811%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	686677.5141
5573540	7/20/2004	204	0.94	140.32	2071	43.2811%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	686677.5141
5573540	5/18/2000	203	0.94	139.38	2073	43.3229%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	682077.4399
5573540	7/28/1999	202	0.94	138.44	2074	43.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	677477.3656
5573540	7/4/2002	202	0.94	138.44	2074	43.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	677477.3656
5573540	9/2/1992	202	0.94	138.44	2074	43.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	677477.3656
5573540	8/2/2003	201	0.94	137.50	2077	43.4065%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	672877.2914
5573540	10/18/2008	201	0.94	137.50	2077	43.4065%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	672877.2914
5573540	5/1/1992	200	0.94	136.56	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	668277.2172
5573540	5/25/2000	200	0.94	136.56	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	668277.2172

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/26/2004	200	0.94	136.56	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	668277.2172
5573540	8/5/2014	200	0.94	136.56	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	668277.2172
5573540	10/19/2008	200	0.94	136.56	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	668277.2172
5573540	10/20/2009	200	0.94	136.56	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	668277.2172
5573540	5/13/2001	199	0.94	135.62	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	663677.1429
5573540	5/8/2015	199	0.94	135.62	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	663677.1429
5573540	7/17/1999	199	0.94	135.62	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	663677.1429
5573540	7/24/2000	199	0.94	135.62	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	663677.1429
5573540	7/17/2013	199	0.94	135.62	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	663677.1429
5573540	10/4/2008	199	0.94	135.62	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	663677.1429
5573540	7/3/2002	198	0.94	134.68	2091	43.6991%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	659077.0687
5573540	5/2/2015	197	0.94	133.74	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	654476.9944
5573540	6/27/2001	197	0.94	133.74	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	654476.9944
5573540	7/13/1994	197	0.94	133.74	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	654476.9944
5573540	7/31/1998	197	0.94	133.74	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	654476.9944
5573540	7/25/2004	197	0.94	133.74	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	654476.9944
5573540	10/14/2008	197	0.94	133.74	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	654476.9944
5573540	5/21/2001	196	0.94	132.80	2098	43.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	649876.9202
5573540	6/4/2003	196	0.94	132.80	2098	43.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	649876.9202
5573540	7/23/2010	196	0.94	132.80	2098	43.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	649876.9202
5573540	9/7/2004	196	0.94	132.80	2098	43.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	649876.9202
5573540	6/25/1997	195	0.94	131.86	2102	43.9289%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	645276.846
5573540	7/8/2007	195	0.94	131.86	2102	43.9289%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	645276.846
5573540	8/4/2009	194	0.94	130.92	2104	43.9707%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	640676.7717
5573540	5/8/2005	193	0.94	129.98	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	636076.6975
5573540	6/12/1992	193	0.94	129.98	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	636076.6975
5573540	7/14/1997	193	0.94	129.98	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	636076.6975
5573540	7/19/2010	193	0.94	129.98	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	636076.6975
5573540	8/6/2000	193	0.94	129.98	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	636076.6975
5573540	8/4/2008	193	0.94	129.98	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	636076.6975
5573540	5/12/2011	192	0.94	129.04	2111	44.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	631476.6232
5573540	5/30/1993	191	0.94	128.10	2112	44.1379%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	626876.549

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/31/2015	191	0.94	128.10	2112	44.1379%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	626876.549
5573540	10/16/2009	191	0.94	128.10	2112	44.1379%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	626876.549
5573540	10/5/2008	190	0.94	127.16	2115	44.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	622276.4748
5573540	5/8/2007	189	0.94	126.22	2116	44.2215%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	617676.4005
5573540	8/12/1992	189	0.94	126.22	2116	44.2215%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	617676.4005
5573540	8/1/2015	189	0.94	126.22	2116	44.2215%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	617676.4005
5573540	5/27/2007	188	0.94	125.28	2119	44.2842%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	613076.3263
5573540	7/20/2013	188	0.94	125.28	2119	44.2842%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	613076.3263
5573540	8/21/1990	188	0.94	125.28	2119	44.2842%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	613076.3263
5573540	7/6/2011	186	0.94	123.40	2122	44.3469%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	603876.1778
5573540	5/15/2005	185	0.94	122.46	2123	44.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	599276.1036
5573540	7/4/1992	185	0.94	122.46	2123	44.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	599276.1036
5573540	7/3/1996	185	0.94	122.46	2123	44.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	599276.1036
5573540	7/24/1998	185	0.94	122.46	2123	44.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	599276.1036
5573540	5/26/1993	184	0.94	121.52	2127	44.4514%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	594676.0293
5573540	8/3/2003	184	0.94	121.52	2127	44.4514%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	594676.0293
5573540	8/6/2014	184	0.94	121.52	2127	44.4514%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	594676.0293
5573540	5/28/2015	183	0.94	120.58	2130	44.5141%	Fecal_coliform	1120	cfu/100mL	200	283.2	3304425.348	590075.9551
5573540	7/20/1990	183	0.94	120.58	2130	44.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	590075.9551
5573540	8/8/1991	183	0.94	120.58	2130	44.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	590075.9551
5573540	9/11/1992	183	0.94	120.58	2130	44.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	590075.9551
5573540	10/3/2008	183	0.94	120.58	2130	44.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	590075.9551
5573540	7/23/1996	182	0.94	119.64	2135	44.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	585475.8808
5573540	5/30/2003	181	0.94	118.70	2136	44.6395%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	580875.8066
5573540	10/15/2000	181	0.94	118.70	2136	44.6395%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	580875.8066
5573540	5/12/1992	180	0.94	117.76	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	576275.7324
5573540	6/25/2003	180	0.94	117.76	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	576275.7324
5573540	7/6/1996	180	0.94	117.76	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	576275.7324
5573540	7/7/2002	180	0.94	117.76	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	576275.7324
5573540	8/29/1997	180	0.94	117.76	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	576275.7324
5573540	8/1/2014	180	0.94	117.76	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	576275.7324
5573540	8/4/2014	180	0.94	117.76	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	576275.7324

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/31/2003	179	0.94	116.82	2145	44.8276%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	571675.6581
5573540	6/2/2007	179	0.94	116.82	2145	44.8276%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	571675.6581
5573540	9/1/1993	178	0.94	115.88	2147	44.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	567075.5839
5573540	5/26/2007	177	0.94	114.94	2148	44.8903%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	562475.5096
5573540	5/30/2001	176	0.94	114.00	2149	44.9112%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	557875.4354
5573540	8/10/2014	176	0.94	114.00	2149	44.9112%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	557875.4354
5573540	6/7/2003	175	0.94	113.06	2151	44.9530%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	553275.3612
5573540	6/3/2007	175	0.94	113.06	2151	44.9530%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	553275.3612
5573540	7/26/2003	175	0.94	113.06	2151	44.9530%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	553275.3612
5573540	7/16/2010	175	0.94	113.06	2151	44.9530%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	553275.3612
5573540	8/11/2006	175	0.94	113.06	2151	44.9530%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	553275.3612
5573540	7/30/2015	174	0.94	112.12	2156	45.0575%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	548675.2869
5573540	8/25/2006	174	0.94	112.12	2156	45.0575%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	548675.2869
5573540	10/6/2008	173	0.94	111.18	2158	45.0993%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	544075.2127
5573540	5/29/2015	172	0.94	110.24	2159	45.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	539475.1384
5573540	8/4/2003	172	0.94	110.24	2159	45.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	539475.1384
5573540	8/3/2015	172	0.94	110.24	2159	45.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	539475.1384
5573540	7/15/2010	171	0.94	109.30	2162	45.1829%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	534875.0642
5573540	9/6/2009	171	0.94	109.30	2162	45.1829%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	534875.0642
5573540	5/16/1992	170	0.94	108.36	2164	45.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	530274.99
5573540	6/5/2007	170	0.94	108.36	2164	45.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	530274.99
5573540	7/31/1990	170	0.94	108.36	2164	45.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	530274.99
5573540	6/1/2001	168	0.94	106.48	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	521074.8415
5573540	6/4/2007	168	0.94	106.48	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	521074.8415
5573540	7/19/1990	168	0.94	106.48	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	521074.8415
5573540	7/13/1996	168	0.94	106.48	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	521074.8415
5573540	7/20/1998	168	0.94	106.48	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	521074.8415
5573540	7/27/2003	168	0.94	106.48	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	521074.8415
5573540	7/28/2003	168	0.94	106.48	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	521074.8415
5573540	5/23/1997	167	0.94	105.54	2174	45.4336%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	516474.7672
5573540	5/17/2000	167	0.94	105.54	2174	45.4336%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	516474.7672
5573540	6/6/2003	167	0.94	105.54	2174	45.4336%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	516474.7672

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/29/2009	167	0.94	105.54	2174	45.4336%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	516474.7672
5573540	9/12/2008	167	0.94	105.54	2174	45.4336%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	516474.7672
5573540	7/29/2003	166	0.94	104.60	2179	45.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	511874.693
5573540	7/30/2003	165	0.94	103.66	2180	45.5590%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	507274.6188
5573540	5/14/2005	164	0.94	102.72	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	502674.5445
5573540	5/7/2015	164	0.94	102.72	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	502674.5445
5573540	7/31/2003	164	0.94	102.72	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	502674.5445
5573540	8/19/1993	164	0.94	102.72	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	502674.5445
5573540	8/3/2009	164	0.94	102.72	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	502674.5445
5573540	8/23/2014	164	0.94	102.72	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	502674.5445
5573540	7/9/1999	163	0.94	101.78	2187	45.7053%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	498074.4703
5573540	5/26/2006	162	0.94	100.84	2188	45.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	493474.396
5573540	10/8/2000	162	0.94	100.84	2188	45.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	493474.396
5573540	5/23/2007	161	0.94	99.90	2190	45.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	488874.3218
5573540	6/13/2005	160	0.94	98.96	2191	45.7889%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	484274.2476
5573540	5/4/2003	159	0.94	98.02	2192	45.8098%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	479674.1733
5573540	7/22/2009	159	0.94	98.02	2192	45.8098%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	479674.1733
5573540	7/31/2014	159	0.94	98.02	2192	45.8098%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	479674.1733
5573540	7/29/2015	159	0.94	98.02	2192	45.8098%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	479674.1733
5573540	8/1/1998	159	0.94	98.02	2192	45.8098%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	479674.1733
5573540	5/20/2005	158	0.94	97.08	2197	45.9143%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	475074.0991
5573540	7/22/2010	158	0.94	97.08	2197	45.9143%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	475074.0991
5573540	8/2/1998	158	0.94	97.08	2197	45.9143%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	475074.0991
5573540	6/16/1992	157	0.94	96.14	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	470474.0248
5573540	6/6/2007	157	0.94	96.14	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	470474.0248
5573540	7/25/2009	157	0.94	96.14	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	470474.0248
5573540	8/5/1990	157	0.94	96.14	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	470474.0248
5573540	8/5/2006	157	0.94	96.14	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	470474.0248
5573540	8/2/2015	157	0.94	96.14	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	470474.0248
5573540	6/2/1992	156	0.94	95.20	2206	46.1024%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	465873.9506
5573540	6/28/1993	156	0.94	95.20	2206	46.1024%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	465873.9506
5573540	7/27/2009	156	0.94	95.20	2206	46.1024%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	465873.9506

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/17/2010	155	0.94	94.26	2209	46.1651%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	461273.8764
5573540	5/25/2007	154	0.94	93.32	2210	46.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	456673.8021
5573540	7/19/2013	154	0.94	93.32	2210	46.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	456673.8021
5573540	7/27/2015	154	0.94	93.32	2210	46.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	456673.8021
5573540	8/12/2006	154	0.94	93.32	2210	46.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	456673.8021
5573540	8/27/2006	154	0.94	93.32	2210	46.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	456673.8021
5573540	5/17/1992	153	0.94	92.38	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	452073.7279
5573540	5/30/2005	153	0.94	92.38	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	452073.7279
5573540	6/4/1992	153	0.94	92.38	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	452073.7279
5573540	6/13/2006	153	0.94	92.38	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	452073.7279
5573540	7/26/2009	153	0.94	92.38	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	452073.7279
5573540	7/28/2009	153	0.94	92.38	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	452073.7279
5573540	8/10/2006	152	0.94	91.44	2221	46.4159%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	447473.6536
5573540	9/9/2008	152	0.94	91.44	2221	46.4159%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	447473.6536
5573540	9/21/1992	151	0.94	90.50	2223	46.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	442873.5794
5573540	5/13/1992	150	0.94	89.56	2224	46.4786%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	438273.5052
5573540	5/9/2014	150	0.94	89.56	2224	46.4786%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	438273.5052
5573540	6/21/1994	150	0.94	89.56	2224	46.4786%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	438273.5052
5573540	7/2/2002	150	0.94	89.56	2224	46.4786%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	438273.5052
5573540	8/5/2009	150	0.94	89.56	2224	46.4786%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	438273.5052
5573540	7/10/1995	149	0.94	88.62	2229	46.5831%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	433673.4309
5573540	6/5/2003	148	0.94	87.68	2230	46.6040%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	429073.3567
5573540	5/26/2005	147	0.94	86.74	2231	46.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	424473.2824
5573540	5/31/2005	147	0.94	86.74	2231	46.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	424473.2824
5573540	8/7/2000	146	0.94	85.80	2233	46.6667%	Fecal_coliform	220	cfu/100mL	200	283.2	461860.529	419873.2082
5573540	8/11/2014	146	0.94	85.80	2233	46.6667%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	419873.2082
5573540	7/11/1994	145	0.94	84.86	2235	46.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	415273.134
5573540	7/26/1995	145	0.94	84.86	2235	46.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	415273.134
5573540	8/24/1990	145	0.94	84.86	2235	46.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	415273.134
5573540	5/1/2015	144	0.94	83.92	2238	46.7712%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	410673.0597
5573540	6/1/2005	144	0.94	83.92	2238	46.7712%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	410673.0597
5573540	7/3/1994	144	0.94	83.92	2238	46.7712%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	410673.0597

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/25/1997	144	0.94	83.92	2238	46.7712%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	410673.0597
5573540	6/10/2003	143	0.94	82.98	2242	46.8548%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	406072.9855
5573540	8/1/2003	143	0.94	82.98	2242	46.8548%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	406072.9855
5573540	6/20/1994	142	0.94	82.04	2244	46.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	401472.9112
5573540	6/9/2003	142	0.94	82.04	2244	46.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	401472.9112
5573540	5/29/2005	141	0.94	81.10	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396872.837
5573540	7/24/1992	141	0.94	81.10	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396872.837
5573540	7/14/1994	141	0.94	81.10	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396872.837
5573540	7/25/1995	141	0.94	81.10	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396872.837
5573540	8/5/2008	141	0.94	81.10	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396872.837
5573540	10/18/2001	141	0.94	81.10	2246	46.9383%	Fecal_coliform	20	cfu/100mL	200	283.2	39687.2837	396872.837
5573540	5/7/2005	140	0.94	80.16	2252	47.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	392272.7628
5573540	5/21/2012	140	0.94	80.16	2252	47.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	392272.7628
5573540	5/22/2012	140	0.94	80.16	2252	47.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	392272.7628
5573540	6/6/1991	139	0.94	79.22	2255	47.1264%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	387672.6885
5573540	6/8/2003	139	0.94	79.22	2255	47.1264%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	387672.6885
5573540	6/20/2005	139	0.94	79.22	2255	47.1264%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	387672.6885
5573540	8/2/2009	139	0.94	79.22	2255	47.1264%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	387672.6885
5573540	6/21/2006	138	0.94	78.28	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	383072.6143
5573540	7/15/1994	138	0.94	78.28	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	383072.6143
5573540	7/16/1994	138	0.94	78.28	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	383072.6143
5573540	7/14/1996	138	0.94	78.28	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	383072.6143
5573540	7/18/2010	138	0.94	78.28	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	383072.6143
5573540	8/26/2006	138	0.94	78.28	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	383072.6143
5573540	7/17/1994	137	0.94	77.34	2265	47.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	378472.54
5573540	7/21/2000	137	0.94	77.34	2265	47.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	378472.54
5573540	7/24/2009	137	0.94	77.34	2265	47.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	378472.54
5573540	8/6/2006	137	0.94	77.34	2265	47.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	378472.54
5573540	10/18/2000	137	0.94	77.34	2265	47.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	378472.54
5573540	9/3/2014	136	0.94	76.40	2270	47.4399%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	373872.4658
5573540	10/16/1992	136	0.94	76.40	2270	47.4399%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	373872.4658
5573540	6/27/1994	135	0.94	75.46	2272	47.4817%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	369272.3916

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/30/2009	135	0.94	75.46	2272	47.4817%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	369272.3916
5573540	8/10/1998	135	0.94	75.46	2272	47.4817%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	369272.3916
5573540	9/29/2015	135	0.94	75.46	2272	47.4817%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	369272.3916
5573540	6/21/1995	134	0.94	74.52	2276	47.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	364672.3173
5573540	8/1/1990	134	0.94	74.52	2276	47.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	364672.3173
5573540	9/12/1992	134	0.94	74.52	2276	47.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	364672.3173
5573540	5/28/2006	133	0.94	73.58	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	360072.2431
5573540	6/20/1992	133	0.94	73.58	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	360072.2431
5573540	8/4/1990	133	0.94	73.58	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	360072.2431
5573540	8/8/2006	133	0.94	73.58	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	360072.2431
5573540	8/9/2006	133	0.94	73.58	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	360072.2431
5573540	9/29/1992	133	0.94	73.58	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	360072.2431
5573540	10/10/2003	133	0.94	73.58	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	360072.2431
5573540	6/10/1991	132	0.94	72.64	2286	47.7743%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	355472.1688
5573540	9/2/1993	132	0.94	72.64	2286	47.7743%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	355472.1688
5573540	9/12/1997	132	0.94	72.64	2286	47.7743%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	355472.1688
5573540	5/5/1995	131	0.94	71.70	2289	47.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	350872.0946
5573540	5/10/2001	131	0.94	71.70	2289	47.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	350872.0946
5573540	7/24/2007	131	0.94	71.70	2289	47.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	350872.0946
5573540	9/5/2004	131	0.94	71.70	2289	47.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	350872.0946
5573540	6/20/2000	130	0.94	70.76	2293	47.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	346272.0204
5573540	7/5/1994	130	0.94	70.76	2293	47.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	346272.0204
5573540	7/24/2013	130	0.94	70.76	2293	47.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	346272.0204
5573540	9/1/2002	130	0.94	70.76	2293	47.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	346272.0204
5573540	6/18/2006	129	0.94	69.82	2297	48.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	341671.9461
5573540	8/23/1995	129	0.94	69.82	2297	48.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	341671.9461
5573540	9/6/2004	129	0.94	69.82	2297	48.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	341671.9461
5573540	5/9/2000	128	0.94	68.88	2300	48.0669%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337071.8719
5573540	6/2/2005	128	0.94	68.88	2300	48.0669%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337071.8719
5573540	7/7/2008	128	0.94	68.88	2300	48.0669%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337071.8719
5573540	7/23/2009	128	0.94	68.88	2300	48.0669%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337071.8719
5573540	6/22/1994	127	0.94	67.94	2304	48.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332471.7976

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/13/1990	127	0.94	67.94	2304	48.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332471.7976
5573540	8/21/1995	127	0.94	67.94	2304	48.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332471.7976
5573540	6/23/1994	126	0.94	67.00	2307	48.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	327871.7234
5573540	8/15/2010	126	0.94	67.00	2307	48.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	327871.7234
5573540	8/31/2002	125	0.94	66.06	2309	48.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	323271.6492
5573540	8/1/2009	125	0.94	66.06	2309	48.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	323271.6492
5573540	5/17/2005	123	0.94	64.18	2311	48.2968%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	314071.5007
5573540	5/28/2005	123	0.94	64.18	2311	48.2968%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	314071.5007
5573540	10/12/2000	123	0.94	64.18	2311	48.2968%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	314071.5007
5573540	5/24/1994	122	0.94	63.24	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	309471.4264
5573540	5/6/2014	122	0.94	63.24	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	309471.4264
5573540	6/9/2007	122	0.94	63.24	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	309471.4264
5573540	7/5/1992	122	0.94	63.24	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	309471.4264
5573540	9/10/2003	122	0.94	63.24	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	309471.4264
5573540	9/30/2015	122	0.94	63.24	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	309471.4264
5573540	8/15/1998	121	0.94	62.30	2320	48.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	304871.3522
5573540	8/7/2006	121	0.94	62.30	2320	48.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	304871.3522
5573540	9/22/1992	121	0.94	62.30	2320	48.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	304871.3522
5573540	5/20/2001	120	0.94	61.36	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	300271.278
5573540	6/7/1991	120	0.94	61.36	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	300271.278
5573540	7/1/1992	120	0.94	61.36	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	300271.278
5573540	8/16/1992	120	0.94	61.36	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	300271.278
5573540	9/24/2015	120	0.94	61.36	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	300271.278
5573540	10/7/2003	120	0.94	61.36	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	300271.278
5573540	8/13/2006	119	0.94	60.42	2329	48.6729%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	295671.2037
5573540	8/12/2014	119	0.94	60.42	2329	48.6729%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	295671.2037
5573540	5/31/1992	118	0.94	59.48	2331	48.7147%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	291071.1295
5573540	8/6/2015	118	0.94	59.48	2331	48.7147%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	291071.1295
5573540	10/7/1990	118	0.94	59.48	2331	48.7147%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	291071.1295
5573540	5/19/2012	117	0.94	58.54	2334	48.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286471.0552
5573540	7/25/1998	117	0.94	58.54	2334	48.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286471.0552
5573540	8/18/1998	117	0.94	58.54	2334	48.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286471.0552

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/10/2009	117	0.94	58.54	2334	48.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286471.0552
5573540	7/25/2007	116	0.94	57.60	2338	48.8610%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281870.981
5573540	5/19/2001	115	0.94	56.66	2339	48.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277270.9068
5573540	5/18/2012	115	0.94	56.66	2339	48.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277270.9068
5573540	6/8/2007	115	0.94	56.66	2339	48.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277270.9068
5573540	9/28/1992	114	0.94	55.72	2342	48.9446%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272670.8325
5573540	5/27/2005	113	0.94	54.78	2343	48.9655%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268070.7583
5573540	8/25/2014	113	0.94	54.78	2343	48.9655%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268070.7583
5573540	5/20/2012	112	0.94	53.84	2345	49.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263470.684
5573540	7/28/2015	112	0.94	53.84	2345	49.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263470.684
5573540	5/17/2012	110	0.94	51.96	2347	49.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254270.5356
5573540	7/13/1991	110	0.94	51.96	2347	49.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254270.5356
5573540	9/4/2004	110	0.94	51.96	2347	49.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254270.5356
5573540	10/11/2000	110	0.94	51.96	2347	49.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254270.5356
5573540	6/17/1991	109	0.94	51.02	2351	49.1327%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	249670.4613
5573540	6/10/2007	109	0.94	51.02	2351	49.1327%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	249670.4613
5573540	8/31/2001	109	0.94	51.02	2351	49.1327%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	249670.4613
5573540	8/6/1991	54	0.94	50.52	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	247226.9469
5573540	9/12/2003	54	0.94	50.52	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	247226.9469
5573540	9/26/2006	54	0.94	50.52	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	247226.9469
5573540	10/29/1995	54	0.94	50.52	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	247226.9469
5573540	6/18/1992	108	0.94	50.08	2358	49.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	245070.3871
5573540	6/21/1992	108	0.94	50.08	2358	49.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	245070.3871
5573540	6/7/2007	108	0.94	50.08	2358	49.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	245070.3871
5573540	8/7/1991	108	0.94	50.08	2358	49.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	245070.3871
5573540	8/27/2014	108	0.94	50.08	2358	49.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	245070.3871
5573540	9/10/2008	108	0.94	50.08	2358	49.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	245070.3871
5573540	5/5/2010	53	0.94	49.58	2364	49.4044%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	242648.6701
5573540	6/11/2005	53	0.94	49.58	2364	49.4044%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	242648.6701
5573540	7/21/1996	53	0.94	49.58	2364	49.4044%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	242648.6701
5573540	7/29/2000	53	0.94	49.58	2364	49.4044%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	242648.6701
5573540	8/5/2010	53	0.94	49.58	2364	49.4044%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	242648.6701

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/12/1991	107	0.94	49.14	2369	49.5089%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	240470.3128
5573540	9/7/2008	107	0.94	49.14	2369	49.5089%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	240470.3128
5573540	7/19/1999	52	0.94	48.65	2371	49.5507%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	238070.3933
5573540	8/2/1990	52	0.94	48.65	2371	49.5507%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	238070.3933
5573540	9/5/1997	52	0.94	48.65	2371	49.5507%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	238070.3933
5573540	9/5/2014	52	0.94	48.65	2371	49.5507%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	238070.3933
5573540	10/30/1995	52	0.94	48.65	2371	49.5507%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	238070.3933
5573540	5/22/2000	106	0.94	48.20	2376	49.6552%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	235870.2386
5573540	7/20/2000	106	0.94	48.20	2376	49.6552%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	235870.2386
5573540	7/31/2013	106	0.94	48.20	2376	49.6552%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	235870.2386
5573540	8/20/1990	106	0.94	48.20	2376	49.6552%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	235870.2386
5573540	8/1/2013	106	0.94	48.20	2376	49.6552%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	235870.2386
5573540	8/30/2014	106	0.94	48.20	2376	49.6552%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	235870.2386
5573540	9/10/1997	106	0.94	48.20	2376	49.6552%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	235870.2386
5573540	6/3/1992	51	0.94	47.71	2383	49.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	233492.1165
5573540	7/26/2007	51	0.94	47.71	2383	49.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	233492.1165
5573540	7/30/2013	51	0.94	47.71	2383	49.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	233492.1165
5573540	8/6/2010	51	0.94	47.71	2383	49.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	233492.1165
5573540	9/1/1990	51	0.94	47.71	2383	49.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	233492.1165
5573540	9/13/2003	51	0.94	47.71	2383	49.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	233492.1165
5573540	9/25/2006	51	0.94	47.71	2383	49.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	233492.1165
5573540	6/7/2006	105	0.94	47.26	2390	49.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	231270.1644
5573540	7/2/1996	105	0.94	47.26	2390	49.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	231270.1644
5573540	9/2/2010	105	0.94	47.26	2390	49.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	231270.1644
5573540	5/27/2006	50	0.94	46.78	2393	50.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	228913.8397
5573540	7/10/1999	50	0.94	46.78	2393	50.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	228913.8397
5573540	8/20/1992	50	0.94	46.78	2393	50.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	228913.8397
5573540	8/31/2003	50	0.94	46.78	2393	50.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	228913.8397
5573540	9/14/2003	50	0.94	46.78	2393	50.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	228913.8397
5573540	9/23/2005	50	0.94	46.78	2393	50.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	228913.8397
5573540	10/21/1995	50	0.94	46.78	2393	50.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	228913.8397
5573540	10/20/2005	50	0.94	46.78	2393	50.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	228913.8397

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/24/2007	104	0.94	46.32	2401	50.1776%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	226670.0901
5573540	6/19/1992	104	0.94	46.32	2401	50.1776%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	226670.0901
5573540	7/10/1994	104	0.94	46.32	2401	50.1776%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	226670.0901
5573540	6/19/1991	49	0.94	45.84	2404	50.2403%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	224335.5629
5573540	7/19/1997	49	0.94	45.84	2404	50.2403%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	224335.5629
5573540	7/9/2001	49	0.94	45.84	2404	50.2403%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	224335.5629
5573540	8/31/1990	49	0.94	45.84	2404	50.2403%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	224335.5629
5573540	8/31/1992	49	0.94	45.84	2404	50.2403%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	224335.5629
5573540	8/15/1995	49	0.94	45.84	2404	50.2403%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	224335.5629
5573540	8/5/2000	103	0.94	45.38	2410	50.3657%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	222070.0159
5573540	7/1/2006	48	0.94	44.91	2411	50.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	219757.2861
5573540	8/15/1990	48	0.94	44.91	2411	50.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	219757.2861
5573540	8/4/1998	48	0.94	44.91	2411	50.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	219757.2861
5573540	10/26/1995	48	0.94	44.91	2411	50.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	219757.2861
5573540	10/8/2009	48	0.94	44.91	2411	50.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	219757.2861
5573540	6/28/1992	102	0.94	44.44	2416	50.4911%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	217469.9416
5573540	6/3/2005	102	0.94	44.44	2416	50.4911%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	217469.9416
5573540	7/27/1995	102	0.94	44.44	2416	50.4911%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	217469.9416
5573540	5/5/2004	47	0.94	43.97	2419	50.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	215179.0093
5573540	5/19/2005	47	0.94	43.97	2419	50.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	215179.0093
5573540	6/22/1992	47	0.94	43.97	2419	50.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	215179.0093
5573540	6/22/2007	47	0.94	43.97	2419	50.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	215179.0093
5573540	8/19/1998	47	0.94	43.97	2419	50.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	215179.0093
5573540	8/4/2010	47	0.94	43.97	2419	50.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	215179.0093
5573540	8/7/2010	47	0.94	43.97	2419	50.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	215179.0093
5573540	5/24/2001	101	0.94	43.50	2426	50.7001%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	212869.8674
5573540	6/22/2013	101	0.94	43.50	2426	50.7001%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	212869.8674
5573540	7/19/2006	101	0.94	43.50	2426	50.7001%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	212869.8674
5573540	6/8/1991	46	0.94	43.04	2429	50.7628%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	210600.7326
5573540	6/5/2005	46	0.94	43.04	2429	50.7628%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	210600.7326
5573540	6/23/2006	46	0.94	43.04	2429	50.7628%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	210600.7326
5573540	8/9/1991	46	0.94	43.04	2429	50.7628%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	210600.7326

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/5/2015	46	0.94	43.04	2429	50.7628%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	210600.7326
5573540	9/5/2009	46	0.94	43.04	2429	50.7628%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	210600.7326
5573540	5/23/2012	100	0.94	42.56	2435	50.8882%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	208269.7932
5573540	8/17/1992	100	0.94	42.56	2435	50.8882%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	208269.7932
5573540	8/16/1999	100	0.94	42.56	2435	50.8882%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	208269.7932
5573540	5/18/2001	45	0.94	42.10	2438	50.9509%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	206022.4558
5573540	7/4/2006	45	0.94	42.10	2438	50.9509%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	206022.4558
5573540	8/8/2010	45	0.94	42.10	2438	50.9509%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	206022.4558
5573540	6/13/1992	99	0.94	41.62	2441	51.0136%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	203669.7189
5573540	7/29/1996	99	0.94	41.62	2441	51.0136%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	203669.7189
5573540	8/31/2014	99	0.94	41.62	2441	51.0136%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	203669.7189
5573540	9/4/2014	99	0.94	41.62	2441	51.0136%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	203669.7189
5573540	5/2/1990	44	0.94	41.16	2445	51.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	201444.179
5573540	6/20/2001	44	0.94	41.16	2445	51.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	201444.179
5573540	7/7/2006	44	0.94	41.16	2445	51.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	201444.179
5573540	9/4/1990	44	0.94	41.16	2445	51.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	201444.179
5573540	9/11/1997	44	0.94	41.16	2445	51.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	201444.179
5573540	9/10/2004	44	0.94	41.16	2445	51.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	201444.179
5573540	9/25/2005	44	0.94	41.16	2445	51.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	201444.179
5573540	10/11/2001	44	0.94	41.16	2445	51.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	201444.179
5573540	10/16/2006	44	0.94	41.16	2445	51.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	201444.179
5573540	7/6/1992	98	0.94	40.68	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	199069.6447
5573540	7/18/2013	98	0.94	40.68	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	199069.6447
5573540	8/6/1990	98	0.94	40.68	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	199069.6447
5573540	10/20/2004	43	0.94	40.23	2457	51.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	196865.9022
5573540	9/1/2014	97	0.94	39.74	2458	51.3689%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	194469.5704
5573540	6/17/2006	42	0.94	39.29	2459	51.3898%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	192287.6254
5573540	7/30/2000	42	0.94	39.29	2459	51.3898%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	192287.6254
5573540	9/2/1997	42	0.94	39.29	2459	51.3898%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	192287.6254
5573540	10/29/1998	42	0.94	39.29	2459	51.3898%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	192287.6254
5573540	10/31/2013	42	0.94	39.29	2459	51.3898%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	192287.6254
5573540	6/14/2006	96	0.94	38.80	2464	51.4943%	Fecal_coliform	220	cfu/100mL	200	283.2	208856.4458	189869.4962

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/27/1993	96	0.94	38.80	2464	51.4943%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	189869.4962
5573540	5/18/2005	41	0.94	38.36	2466	51.5361%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	187709.3486
5573540	8/29/2009	41	0.94	38.36	2466	51.5361%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	187709.3486
5573540	9/15/2003	41	0.94	38.36	2466	51.5361%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	187709.3486
5573540	10/1/2015	41	0.94	38.36	2466	51.5361%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	187709.3486
5573540	5/2/2012	95	0.94	37.86	2470	51.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	185269.422
5573540	8/23/1990	95	0.94	37.86	2470	51.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	185269.422
5573540	6/4/2005	40	0.94	37.42	2472	51.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	183131.0718
5573540	7/29/1999	40	0.94	37.42	2472	51.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	183131.0718
5573540	7/22/2000	40	0.94	37.42	2472	51.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	183131.0718
5573540	8/28/1998	40	0.94	37.42	2472	51.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	183131.0718
5573540	9/11/2004	40	0.94	37.42	2472	51.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	183131.0718
5573540	9/12/2004	40	0.94	37.42	2472	51.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	183131.0718
5573540	10/25/1995	40	0.94	37.42	2472	51.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	183131.0718
5573540	10/31/2006	40	0.94	37.42	2472	51.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	183131.0718
5573540	5/26/2000	94	0.94	36.92	2480	51.8286%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	180669.3477
5573540	7/9/2007	94	0.94	36.92	2480	51.8286%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	180669.3477
5573540	10/12/2001	94	0.94	36.92	2480	51.8286%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	180669.3477
5573540	7/30/2010	39	0.94	36.49	2483	51.8913%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	178552.795
5573540	9/4/2009	39	0.94	36.49	2483	51.8913%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	178552.795
5573540	9/10/2014	39	0.94	36.49	2483	51.8913%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	178552.795
5573540	6/30/1992	93	0.94	35.98	2486	51.9540%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	176069.2735
5573540	7/6/1994	93	0.94	35.98	2486	51.9540%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	176069.2735
5573540	8/30/2001	93	0.94	35.98	2486	51.9540%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	176069.2735
5573540	9/7/2006	93	0.94	35.98	2486	51.9540%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	176069.2735
5573540	5/7/2000	38	0.94	35.55	2490	52.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	173974.5182
5573540	7/28/2013	38	0.94	35.55	2490	52.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	173974.5182
5573540	10/5/1991	38	0.94	35.55	2490	52.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	173974.5182
5573540	10/13/2001	38	0.94	35.55	2490	52.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	173974.5182
5573540	9/6/2006	92	0.94	35.04	2494	52.1212%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	171469.1992
5573540	6/28/1994	37	0.94	34.62	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	169396.2414
5573540	7/30/1996	37	0.94	34.62	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	169396.2414

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/2/2006	37	0.94	34.62	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	169396.2414
5573540	8/9/1990	37	0.94	34.62	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	169396.2414
5573540	8/11/1998	37	0.94	34.62	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	169396.2414
5573540	10/22/1995	37	0.94	34.62	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	169396.2414
5573540	10/24/1995	37	0.94	34.62	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	169396.2414
5573540	6/2/2001	91	0.94	34.10	2502	52.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	166869.125
5573540	7/21/2004	91	0.94	34.10	2502	52.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	166869.125
5573540	7/26/2004	91	0.94	34.10	2502	52.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	166869.125
5573540	9/13/1992	91	0.94	34.10	2502	52.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	166869.125
5573540	9/9/2004	91	0.94	34.10	2502	52.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	166869.125
5573540	9/5/2006	91	0.94	34.10	2502	52.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	166869.125
5573540	7/16/1997	36	0.94	33.68	2508	52.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	164817.9646
5573540	7/25/2000	36	0.94	33.68	2508	52.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	164817.9646
5573540	8/25/2009	36	0.94	33.68	2508	52.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	164817.9646
5573540	9/19/2005	36	0.94	33.68	2508	52.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	164817.9646
5573540	9/20/2015	36	0.94	33.68	2508	52.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	164817.9646
5573540	6/1/1992	90	0.94	33.16	2513	52.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	162269.0508
5573540	8/18/1992	90	0.94	33.16	2513	52.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	162269.0508
5573540	5/6/2004	35	0.94	32.74	2515	52.5601%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	160239.6878
5573540	10/30/1998	35	0.94	32.74	2515	52.5601%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	160239.6878
5573540	10/21/2005	35	0.94	32.74	2515	52.5601%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	160239.6878
5573540	7/7/1994	89	0.94	32.22	2518	52.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	157668.9765
5573540	7/8/1994	89	0.94	32.22	2518	52.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	157668.9765
5573540	7/31/2009	89	0.94	32.22	2518	52.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	157668.9765
5573540	7/16/1996	34	0.94	31.81	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	155661.411
5573540	7/8/2006	34	0.94	31.81	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	155661.411
5573540	8/11/2008	34	0.94	31.81	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	155661.411
5573540	8/21/2009	34	0.94	31.81	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	155661.411
5573540	10/14/2001	34	0.94	31.81	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	155661.411
5573540	10/6/2003	34	0.94	31.81	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	155661.411
5573540	7/9/1994	88	0.94	31.28	2527	52.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	153068.9023
5573540	9/2/2002	88	0.94	31.28	2527	52.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	153068.9023

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/1/2012	33	0.94	30.87	2529	52.8527%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	151083.1342
5573540	7/8/1996	33	0.94	30.87	2529	52.8527%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	151083.1342
5573540	7/9/2006	33	0.94	30.87	2529	52.8527%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	151083.1342
5573540	8/17/1999	33	0.94	30.87	2529	52.8527%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	151083.1342
5573540	8/9/2015	33	0.94	30.87	2529	52.8527%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	151083.1342
5573540	9/16/2003	33	0.94	30.87	2529	52.8527%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	151083.1342
5573540	10/19/1995	33	0.94	30.87	2529	52.8527%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	151083.1342
5573540	10/6/1998	33	0.94	30.87	2529	52.8527%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	151083.1342
5573540	10/28/1998	33	0.94	30.87	2529	52.8527%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	151083.1342
5573540	10/8/1999	33	0.94	30.87	2529	52.8527%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	151083.1342
5573540	10/14/2003	33	0.94	30.87	2529	52.8527%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	151083.1342
5573540	6/22/2005	87	0.94	30.34	2540	53.0825%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	148468.828
5573540	7/8/2003	32	0.94	29.94	2541	53.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	146504.8574
5573540	8/22/2015	32	0.94	29.94	2541	53.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	146504.8574
5573540	9/9/1992	32	0.94	29.94	2541	53.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	146504.8574
5573540	10/23/1995	32	0.94	29.94	2541	53.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	146504.8574
5573540	8/3/1998	86	0.94	29.40	2545	53.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	143868.7538
5573540	6/4/2012	31	0.94	29.00	2546	53.2079%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	141926.5806
5573540	7/12/1996	31	0.94	29.00	2546	53.2079%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	141926.5806
5573540	8/13/1998	31	0.94	29.00	2546	53.2079%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	141926.5806
5573540	8/18/2001	31	0.94	29.00	2546	53.2079%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	141926.5806
5573540	8/23/2015	31	0.94	29.00	2546	53.2079%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	141926.5806
5573540	5/9/2007	85	0.94	28.46	2551	53.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	139268.6796
5573540	7/6/2001	85	0.94	28.46	2551	53.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	139268.6796
5573540	7/11/2011	85	0.94	28.46	2551	53.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	139268.6796
5573540	8/8/2008	85	0.94	28.46	2551	53.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	139268.6796
5573540	7/11/1995	30	0.94	28.07	2555	53.3960%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	137348.3038
5573540	7/12/2005	30	0.94	28.07	2555	53.3960%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	137348.3038
5573540	9/27/2006	30	0.94	28.07	2555	53.3960%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	137348.3038
5573540	10/20/2003	30	0.94	28.07	2555	53.3960%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	137348.3038
5573540	6/23/2005	84	0.94	27.52	2559	53.4796%	Fecal_coliform	2	cfu/100mL	200	283.2	1346.686053	134668.6053
5573540	7/22/1996	84	0.94	27.52	2559	53.4796%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	134668.6053

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/15/2011	84	0.94	27.52	2559	53.4796%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	134668.6053
5573540	8/10/2015	84	0.94	27.52	2559	53.4796%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	134668.6053
5573540	6/9/2005	29	0.94	27.13	2563	53.5632%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	132770.027
5573540	7/13/1999	29	0.94	27.13	2563	53.5632%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	132770.027
5573540	7/3/2006	29	0.94	27.13	2563	53.5632%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	132770.027
5573540	8/24/1995	29	0.94	27.13	2563	53.5632%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	132770.027
5573540	9/14/1997	29	0.94	27.13	2563	53.5632%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	132770.027
5573540	9/7/2012	29	0.94	27.13	2563	53.5632%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	132770.027
5573540	10/18/1995	29	0.94	27.13	2563	53.5632%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	132770.027
5573540	6/18/1991	83	0.94	26.58	2570	53.7095%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	130068.5311
5573540	10/18/1992	83	0.94	26.58	2570	53.7095%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	130068.5311
5573540	6/27/2005	28	0.94	26.20	2572	53.7513%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	128191.7502
5573540	7/28/1998	28	0.94	26.20	2572	53.7513%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	128191.7502
5573540	7/18/2005	28	0.94	26.20	2572	53.7513%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	128191.7502
5573540	8/8/1990	28	0.94	26.20	2572	53.7513%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	128191.7502
5573540	8/29/1998	28	0.94	26.20	2572	53.7513%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	128191.7502
5573540	8/15/2006	28	0.94	26.20	2572	53.7513%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	128191.7502
5573540	8/16/2012	28	0.94	26.20	2572	53.7513%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	128191.7502
5573540	9/17/2003	28	0.94	26.20	2572	53.7513%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	128191.7502
5573540	9/28/2006	28	0.94	26.20	2572	53.7513%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	128191.7502
5573540	10/21/1992	28	0.94	26.20	2572	53.7513%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	128191.7502
5573540	5/18/1992	82	0.94	25.64	2582	53.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	125468.4568
5573540	6/24/2005	82	0.94	25.64	2582	53.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	125468.4568
5573540	9/18/2006	82	0.94	25.64	2582	53.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	125468.4568
5573540	5/6/1995	27	0.94	25.26	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	123613.4735
5573540	5/25/2001	27	0.94	25.26	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	123613.4735
5573540	5/26/2001	27	0.94	25.26	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	123613.4735
5573540	5/7/2014	27	0.94	25.26	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	123613.4735
5573540	6/23/1991	27	0.94	25.26	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	123613.4735
5573540	7/27/2004	27	0.94	25.26	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	123613.4735
5573540	8/26/1997	27	0.94	25.26	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	123613.4735
5573540	9/18/2003	27	0.94	25.26	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	123613.4735

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/17/1995	27	0.94	25.26	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	123613.4735
5573540	6/3/1993	81	0.94	24.70	2594	54.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	120868.3826
5573540	6/25/2005	81	0.94	24.70	2594	54.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	120868.3826
5573540	7/5/2006	81	0.94	24.70	2594	54.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	120868.3826
5573540	8/20/2014	81	0.94	24.70	2594	54.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	120868.3826
5573540	6/19/2007	26	0.94	24.32	2598	54.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	119035.1967
5573540	6/5/2012	26	0.94	24.32	2598	54.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	119035.1967
5573540	7/22/1997	26	0.94	24.32	2598	54.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	119035.1967
5573540	7/10/2001	26	0.94	24.32	2598	54.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	119035.1967
5573540	7/14/2001	26	0.94	24.32	2598	54.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	119035.1967
5573540	8/17/1990	26	0.94	24.32	2598	54.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	119035.1967
5573540	8/29/1993	26	0.94	24.32	2598	54.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	119035.1967
5573540	8/17/1998	26	0.94	24.32	2598	54.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	119035.1967
5573540	8/12/2009	26	0.94	24.32	2598	54.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	119035.1967
5573540	8/2/2010	26	0.94	24.32	2598	54.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	119035.1967
5573540	9/28/1999	26	0.94	24.32	2598	54.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	119035.1967
5573540	9/29/1999	26	0.94	24.32	2598	54.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	119035.1967
5573540	9/19/2003	26	0.94	24.32	2598	54.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	119035.1967
5573540	10/3/1992	26	0.94	24.32	2598	54.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	119035.1967
5573540	10/15/1995	26	0.94	24.32	2598	54.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	119035.1967
5573540	10/16/1995	26	0.94	24.32	2598	54.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	119035.1967
5573540	6/3/2001	80	0.94	23.76	2614	54.6290%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	116268.3084
5573540	7/18/1994	80	0.94	23.76	2614	54.6290%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	116268.3084
5573540	7/21/1998	80	0.94	23.76	2614	54.6290%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	116268.3084
5573540	7/23/2007	80	0.94	23.76	2614	54.6290%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	116268.3084
5573540	8/19/1992	80	0.94	23.76	2614	54.6290%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	116268.3084
5573540	9/11/2006	80	0.94	23.76	2614	54.6290%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	116268.3084
5573540	6/26/1992	25	0.94	23.39	2620	54.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	114456.9199
5573540	6/10/2005	25	0.94	23.39	2620	54.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	114456.9199
5573540	6/20/2007	25	0.94	23.39	2620	54.7544%	Fecal_coliform	47	cfu/100mL	200	283.2	26897.37617	114456.9199
5573540	7/15/1991	25	0.94	23.39	2620	54.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	114456.9199
5573540	8/15/2008	25	0.94	23.39	2620	54.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	114456.9199

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/11/2010	25	0.94	23.39	2620	54.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	114456.9199
5573540	9/26/2003	25	0.94	23.39	2620	54.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	114456.9199
5573540	10/14/1995	25	0.94	23.39	2620	54.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	114456.9199
5573540	10/11/2003	25	0.94	23.39	2620	54.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	114456.9199
5573540	6/27/2006	79	0.94	22.82	2629	54.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	111668.2341
5573540	8/8/1993	79	0.94	22.82	2629	54.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	111668.2341
5573540	9/21/2006	79	0.94	22.82	2629	54.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	111668.2341
5573540	5/21/1992	24	0.94	22.45	2632	55.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	109878.6431
5573540	6/28/2001	24	0.94	22.45	2632	55.0052%	Fecal_coliform	60	cfu/100mL	200	283.2	32963.59292	109878.6431
5573540	6/6/2012	24	0.94	22.45	2632	55.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	109878.6431
5573540	7/17/1996	24	0.94	22.45	2632	55.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	109878.6431
5573540	8/23/1997	24	0.94	22.45	2632	55.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	109878.6431
5573540	8/17/2006	24	0.94	22.45	2632	55.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	109878.6431
5573540	8/26/2009	24	0.94	22.45	2632	55.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	109878.6431
5573540	9/5/1990	24	0.94	22.45	2632	55.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	109878.6431
5573540	9/24/2000	24	0.94	22.45	2632	55.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	109878.6431
5573540	9/20/2003	24	0.94	22.45	2632	55.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	109878.6431
5573540	9/11/2009	24	0.94	22.45	2632	55.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	109878.6431
5573540	10/4/1991	24	0.94	22.45	2632	55.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	109878.6431
5573540	8/22/1990	78	0.94	21.88	2644	55.2560%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	107068.1599
5573540	8/6/2009	78	0.94	21.88	2644	55.2560%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	107068.1599
5573540	8/22/2009	78	0.94	21.88	2644	55.2560%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	107068.1599
5573540	8/14/2010	78	0.94	21.88	2644	55.2560%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	107068.1599
5573540	5/24/2012	23	0.94	21.52	2648	55.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	105300.3663
5573540	5/30/2012	23	0.94	21.52	2648	55.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	105300.3663
5573540	5/8/2014	23	0.94	21.52	2648	55.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	105300.3663
5573540	6/23/1992	23	0.94	21.52	2648	55.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	105300.3663
5573540	6/24/1992	23	0.94	21.52	2648	55.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	105300.3663
5573540	7/16/1999	23	0.94	21.52	2648	55.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	105300.3663
5573540	7/15/2005	23	0.94	21.52	2648	55.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	105300.3663
5573540	8/7/1990	23	0.94	21.52	2648	55.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	105300.3663
5573540	8/11/2009	23	0.94	21.52	2648	55.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	105300.3663

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/19/2009	23	0.94	21.52	2648	55.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	105300.3663
5573540	8/10/2010	23	0.94	21.52	2648	55.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	105300.3663
5573540	8/22/2010	23	0.94	21.52	2648	55.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	105300.3663
5573540	9/15/1997	23	0.94	21.52	2648	55.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	105300.3663
5573540	9/21/2003	23	0.94	21.52	2648	55.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	105300.3663
5573540	9/13/2004	23	0.94	21.52	2648	55.3396%	Fecal_coliform	160	cfu/100mL	200	283.2	84240.29302	105300.3663
5573540	10/17/2001	23	0.94	21.52	2648	55.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	105300.3663
5573540	7/11/2006	77	0.94	20.94	2664	55.6740%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	102468.0856
5573540	7/25/2013	77	0.94	20.94	2664	55.6740%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	102468.0856
5573540	8/2/2013	77	0.94	20.94	2664	55.6740%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	102468.0856
5573540	6/25/1992	22	0.94	20.58	2667	55.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	100722.0895
5573540	7/9/1996	22	0.94	20.58	2667	55.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	100722.0895
5573540	7/22/2007	22	0.94	20.58	2667	55.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	100722.0895
5573540	7/29/2013	22	0.94	20.58	2667	55.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	100722.0895
5573540	8/12/2010	22	0.94	20.58	2667	55.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	100722.0895
5573540	8/5/2012	22	0.94	20.58	2667	55.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	100722.0895
5573540	9/22/2003	22	0.94	20.58	2667	55.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	100722.0895
5573540	9/27/2003	22	0.94	20.58	2667	55.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	100722.0895
5573540	10/20/1992	22	0.94	20.58	2667	55.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	100722.0895
5573540	10/13/1995	22	0.94	20.58	2667	55.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	100722.0895
5573540	10/10/2001	22	0.94	20.58	2667	55.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	100722.0895
5573540	10/31/2003	22	0.94	20.58	2667	55.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	100722.0895
5573540	10/22/2012	22	0.94	20.58	2667	55.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	100722.0895
5573540	6/17/1995	76	0.94	20.00	2680	56.0084%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	97868.0114
5573540	6/18/1995	21	0.94	19.65	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	96143.81269
5573540	7/20/1999	21	0.94	19.65	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	96143.81269
5573540	7/16/2011	21	0.94	19.65	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	96143.81269
5573540	8/25/1990	21	0.94	19.65	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	96143.81269
5573540	8/5/2004	21	0.94	19.65	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	96143.81269
5573540	8/20/2009	21	0.94	19.65	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	96143.81269
5573540	8/28/2009	21	0.94	19.65	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	96143.81269
5573540	8/4/2013	21	0.94	19.65	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	96143.81269

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/14/2015	21	0.94	19.65	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	96143.81269
5573540	9/27/2011	21	0.94	19.65	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	96143.81269
5573540	10/12/2004	21	0.94	19.65	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	96143.81269
5573540	10/23/2012	21	0.94	19.65	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	96143.81269
5573540	5/16/2012	75	0.94	19.06	2693	56.2800%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	93267.93716
5573540	6/29/1992	75	0.94	19.06	2693	56.2800%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	93267.93716
5573540	6/21/2005	75	0.94	19.06	2693	56.2800%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	93267.93716
5573540	8/23/2009	75	0.94	19.06	2693	56.2800%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	93267.93716
5573540	9/3/1990	75	0.94	19.06	2693	56.2800%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	93267.93716
5573540	9/10/2006	75	0.94	19.06	2693	56.2800%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	93267.93716
5573540	9/22/2006	75	0.94	19.06	2693	56.2800%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	93267.93716
5573540	7/10/1996	20	0.94	18.71	2700	56.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	91565.53589
5573540	7/18/1996	20	0.94	18.71	2700	56.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	91565.53589
5573540	7/10/2007	20	0.94	18.71	2700	56.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	91565.53589
5573540	8/19/1990	20	0.94	18.71	2700	56.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	91565.53589
5573540	8/30/1997	20	0.94	18.71	2700	56.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	91565.53589
5573540	8/13/2009	20	0.94	18.71	2700	56.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	91565.53589
5573540	8/27/2009	20	0.94	18.71	2700	56.4263%	Fecal_coliform	63	cfu/100mL	200	283.2	28843.14381	91565.53589
5573540	10/12/1995	20	0.94	18.71	2700	56.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	91565.53589
5573540	10/21/2003	20	0.94	18.71	2700	56.4263%	Fecal_coliform	30	cfu/100mL	200	283.2	13734.83038	91565.53589
5573540	10/30/2003	20	0.94	18.71	2700	56.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	91565.53589
5573540	10/18/2004	20	0.94	18.71	2700	56.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	91565.53589
5573540	10/7/2005	20	0.94	18.71	2700	56.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	91565.53589
5573540	5/8/2000	74	0.94	18.12	2712	56.6771%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88667.86292
5573540	7/30/1998	74	0.94	18.12	2712	56.6771%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88667.86292
5573540	8/7/2009	74	0.94	18.12	2712	56.6771%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88667.86292
5573540	8/8/2009	74	0.94	18.12	2712	56.6771%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88667.86292
5573540	8/9/2009	74	0.94	18.12	2712	56.6771%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88667.86292
5573540	9/26/2015	74	0.94	18.12	2712	56.6771%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88667.86292
5573540	6/28/2005	19	0.94	17.78	2718	56.8025%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	86987.2591
5573540	6/21/2007	19	0.94	17.78	2718	56.8025%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	86987.2591
5573540	7/19/1994	19	0.94	17.78	2718	56.8025%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	86987.2591

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/11/1996	19	0.94	17.78	2718	56.8025%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	86987.2591
5573540	7/26/2000	19	0.94	17.78	2718	56.8025%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	86987.2591
5573540	7/5/2005	19	0.94	17.78	2718	56.8025%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	86987.2591
5573540	7/20/2006	19	0.94	17.78	2718	56.8025%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	86987.2591
5573540	7/13/2011	19	0.94	17.78	2718	56.8025%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	86987.2591
5573540	8/16/2006	19	0.94	17.78	2718	56.8025%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	86987.2591
5573540	8/21/2010	19	0.94	17.78	2718	56.8025%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	86987.2591
5573540	8/21/2015	19	0.94	17.78	2718	56.8025%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	86987.2591
5573540	9/30/1992	19	0.94	17.78	2718	56.8025%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	86987.2591
5573540	9/23/2003	19	0.94	17.78	2718	56.8025%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	86987.2591
5573540	9/29/2006	19	0.94	17.78	2718	56.8025%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	86987.2591
5573540	10/2/1992	19	0.94	17.78	2718	56.8025%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	86987.2591
5573540	10/4/1992	19	0.94	17.78	2718	56.8025%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	86987.2591
5573540	10/11/1995	19	0.94	17.78	2718	56.8025%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	86987.2591
5573540	10/26/2003	19	0.94	17.78	2718	56.8025%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	86987.2591
5573540	10/28/2003	19	0.94	17.78	2718	56.8025%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	86987.2591
5573540	10/29/2003	19	0.94	17.78	2718	56.8025%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	86987.2591
5573540	5/4/2000	73	0.94	17.18	2738	57.2205%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	84067.78868
5573540	7/14/1991	73	0.94	17.18	2738	57.2205%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	84067.78868
5573540	8/8/2000	73	0.94	17.18	2738	57.2205%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	84067.78868
5573540	9/19/2006	73	0.94	17.18	2738	57.2205%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	84067.78868
5573540	9/20/2006	73	0.94	17.18	2738	57.2205%	Fecal_coliform	206	cfu/100mL	200	283.2	86589.82234	84067.78868
5573540	10/31/1995	73	0.94	17.18	2738	57.2205%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	84067.78868
5573540	6/3/2012	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	7/28/1995	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	7/19/1996	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	7/31/2010	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	8/20/1998	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	8/24/1999	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	8/18/2000	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	8/2/2001	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	8/29/2003	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/6/2004	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	8/20/2004	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	8/9/2010	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	8/13/2010	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	8/23/2010	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	8/24/2015	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	9/1/1992	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	9/24/2003	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	9/28/2003	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	9/22/2010	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	10/7/1995	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	10/9/1995	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	10/10/1995	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	10/15/2001	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	10/22/2001	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	10/27/2003	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	10/31/2005	18	0.94	16.84	2744	57.3459%	Fecal_coliform	331	cfu/100mL	200	283.2	136386.8657	82408.9823
5573540	10/14/2012	18	0.94	16.84	2744	57.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82408.9823
5573540	6/24/2006	72	0.94	16.24	2771	57.9101%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	79467.71444
5573540	6/26/2006	72	0.94	16.24	2771	57.9101%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	79467.71444
5573540	8/13/2008	72	0.94	16.24	2771	57.9101%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	79467.71444
5573540	9/4/2006	72	0.94	16.24	2771	57.9101%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	79467.71444
5573540	9/14/2006	72	0.94	16.24	2771	57.9101%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	79467.71444
5573540	9/25/2015	72	0.94	16.24	2771	57.9101%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	79467.71444
5573540	6/15/1991	17	0.94	15.90	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	77830.70551
5573540	7/20/1996	17	0.94	15.90	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	77830.70551
5573540	7/31/2000	17	0.94	15.90	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	77830.70551
5573540	7/26/2006	17	0.94	15.90	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	77830.70551
5573540	7/12/2011	17	0.94	15.90	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	77830.70551
5573540	8/29/1991	17	0.94	15.90	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	77830.70551
5573540	8/17/2000	17	0.94	15.90	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	77830.70551
5573540	8/12/2005	17	0.94	15.90	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	77830.70551

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/1/2001	17	0.94	15.90	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	77830.70551
5573540	9/3/2002	17	0.94	15.90	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	77830.70551
5573540	9/3/2008	17	0.94	15.90	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	77830.70551
5573540	10/5/1992	17	0.94	15.90	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	77830.70551
5573540	10/6/1995	17	0.94	15.90	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	77830.70551
5573540	10/8/1995	17	0.94	15.90	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	77830.70551
5573540	10/12/2003	17	0.94	15.90	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	77830.70551
5573540	10/22/2003	17	0.94	15.90	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	77830.70551
5573540	7/22/2004	71	0.94	15.30	2793	58.3699%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	74867.6402
5573540	8/14/2006	71	0.94	15.30	2793	58.3699%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	74867.6402
5573540	9/28/2015	71	0.94	15.30	2793	58.3699%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	74867.6402
5573540	5/29/2012	16	0.94	14.97	2796	58.4326%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73252.42871
5573540	6/11/1991	16	0.94	14.97	2796	58.4326%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73252.42871
5573540	7/28/2004	16	0.94	14.97	2796	58.4326%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73252.42871
5573540	7/11/2005	16	0.94	14.97	2796	58.4326%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73252.42871
5573540	7/10/2006	16	0.94	14.97	2796	58.4326%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73252.42871
5573540	7/27/2007	16	0.94	14.97	2796	58.4326%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73252.42871
5573540	8/27/1990	16	0.94	14.97	2796	58.4326%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73252.42871
5573540	8/21/1992	16	0.94	14.97	2796	58.4326%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73252.42871
5573540	8/18/1999	16	0.94	14.97	2796	58.4326%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73252.42871
5573540	8/1/2004	16	0.94	14.97	2796	58.4326%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73252.42871
5573540	8/2/2004	16	0.94	14.97	2796	58.4326%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73252.42871
5573540	8/24/2004	16	0.94	14.97	2796	58.4326%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73252.42871
5573540	8/9/2008	16	0.94	14.97	2796	58.4326%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73252.42871
5573540	9/6/1990	16	0.94	14.97	2796	58.4326%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73252.42871
5573540	9/16/1997	16	0.94	14.97	2796	58.4326%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73252.42871
5573540	9/6/2001	16	0.94	14.97	2796	58.4326%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73252.42871
5573540	9/26/2005	16	0.94	14.97	2796	58.4326%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73252.42871
5573540	9/9/2011	16	0.94	14.97	2796	58.4326%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73252.42871
5573540	10/19/2002	16	0.94	14.97	2796	58.4326%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73252.42871
5573540	10/25/2003	16	0.94	14.97	2796	58.4326%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73252.42871
5573540	5/9/2001	70	0.94	14.36	2816	58.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	70267.56596

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/7/2005	70	0.94	14.36	2816	58.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	70267.56596
5573540	8/13/2014	70	0.94	14.36	2816	58.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	70267.56596
5573540	9/15/2006	70	0.94	14.36	2816	58.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	70267.56596
5573540	9/16/2006	70	0.94	14.36	2816	58.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	70267.56596
5573540	10/27/1995	70	0.94	14.36	2816	58.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	70267.56596
5573540	6/15/2006	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	7/14/1999	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	7/30/1999	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	7/27/2000	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	7/3/2001	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	7/29/2001	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	7/4/2005	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	7/10/2005	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	8/23/1999	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	8/9/2000	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	8/23/2001	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	8/1/2010	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	8/16/2010	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	8/8/2015	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	9/25/2000	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	9/25/2003	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	9/29/2003	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	9/30/2003	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	9/14/2004	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	9/21/2012	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	10/17/1992	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	10/19/1998	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	10/20/2000	15	0.94	14.03	2822	58.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68674.15192
5573540	5/31/2012	69	0.94	13.42	2845	59.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	65667.49172
5573540	6/25/2006	69	0.94	13.42	2845	59.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	65667.49172
5573540	6/28/2006	69	0.94	13.42	2845	59.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	65667.49172
5573540	7/27/2013	69	0.94	13.42	2845	59.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	65667.49172

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/21/2006	69	0.94	13.42	2845	59.4566%	Fecal_coliform	106	cfu/100mL	200	283.2	34803.77061	65667.49172
5573540	8/11/2015	69	0.94	13.42	2845	59.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	65667.49172
5573540	10/20/1995	69	0.94	13.42	2845	59.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	65667.49172
5573540	6/17/1992	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	6/29/1994	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	6/29/2005	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	6/22/2006	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	7/15/1999	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	7/2/2003	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	7/30/2004	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	7/6/2005	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	7/8/2005	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	7/9/2005	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	7/19/2005	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	8/26/1990	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	8/6/1993	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	8/3/2004	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	8/4/2004	14	0.94	13.10	2852	59.6029%	Fecal_coliform	90	cfu/100mL	200	283.2	28843.14381	64095.87512
5573540	8/19/2005	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	9/19/2004	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	9/12/2009	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	9/2/2012	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	10/19/1992	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	10/20/1998	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	10/21/1998	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	10/9/1999	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	10/5/2001	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	10/13/2003	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	10/23/2003	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	10/13/2004	14	0.94	13.10	2852	59.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64095.87512
5573540	7/12/1999	68	0.94	12.48	2879	60.1672%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	61067.41748
5573540	8/22/2006	68	0.94	12.48	2879	60.1672%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	61067.41748

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/12/2006	68	0.94	12.48	2879	60.1672%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	61067.41748
5573540	9/13/2006	68	0.94	12.48	2879	60.1672%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	61067.41748
5573540	9/17/2006	68	0.94	12.48	2879	60.1672%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	61067.41748
5573540	9/1/2012	68	0.94	12.48	2879	60.1672%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	61067.41748
5573540	10/31/1993	68	0.94	12.48	2879	60.1672%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	61067.41748
5573540	5/1/2012	13	0.94	12.16	2886	60.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	59517.59833
5573540	5/15/2012	13	0.94	12.16	2886	60.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	59517.59833
5573540	6/16/2006	13	0.94	12.16	2886	60.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	59517.59833
5573540	6/18/2007	13	0.94	12.16	2886	60.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	59517.59833
5573540	7/23/1997	13	0.94	12.16	2886	60.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	59517.59833
5573540	7/7/2005	13	0.94	12.16	2886	60.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	59517.59833
5573540	7/13/2005	13	0.94	12.16	2886	60.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	59517.59833
5573540	8/2/2000	13	0.94	12.16	2886	60.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	59517.59833
5573540	8/9/2004	13	0.94	12.16	2886	60.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	59517.59833
5573540	8/7/2015	13	0.94	12.16	2886	60.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	59517.59833
5573540	9/18/2004	13	0.94	12.16	2886	60.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	59517.59833
5573540	9/20/2004	13	0.94	12.16	2886	60.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	59517.59833
5573540	9/30/2006	13	0.94	12.16	2886	60.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	59517.59833
5573540	10/23/2001	13	0.94	12.16	2886	60.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	59517.59833
5573540	10/15/2003	13	0.94	12.16	2886	60.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	59517.59833
5573540	10/24/2003	13	0.94	12.16	2886	60.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	59517.59833
5573540	10/6/2009	13	0.94	12.16	2886	60.3135%	Fecal_coliform	5	cfu/100mL	200	283.2	1487.939958	59517.59833
5573540	5/14/2012	67	0.94	11.54	2903	60.6688%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	56467.34324
5573540	8/14/1990	67	0.94	11.54	2903	60.6688%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	56467.34324
5573540	8/12/2008	67	0.94	11.54	2903	60.6688%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	56467.34324
5573540	5/30/1992	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153
5573540	6/29/2001	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153
5573540	6/30/2005	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153
5573540	6/2/2012	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153
5573540	7/17/1997	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153
5573540	7/21/1999	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153
5573540	7/28/2000	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/7/2001	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153
5573540	7/3/2005	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153
5573540	7/16/2005	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153
5573540	8/28/1990	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153
5573540	8/16/1995	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153
5573540	8/24/1997	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153
5573540	8/24/2001	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153
5573540	8/23/2002	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153
5573540	9/15/2004	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153
5573540	9/16/2004	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153
5573540	9/7/2010	12	0.94	11.23	2906	60.7315%	Fecal_coliform	20000	cfu/100mL	200	283.2	5493932.153	54939.32153
5573540	10/23/1996	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153
5573540	10/31/1998	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153
5573540	10/9/2000	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153
5573540	10/1/2003	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153
5573540	10/8/2004	12	0.94	11.23	2906	60.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54939.32153
5573540	6/1/1994	66	0.94	10.60	2929	61.2121%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	51867.269
5573540	7/24/1995	66	0.94	10.60	2929	61.2121%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	51867.269
5573540	7/26/2013	66	0.94	10.60	2929	61.2121%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	51867.269
5573540	6/7/2012	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	6/10/2012	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	7/31/1996	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	7/13/2001	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	7/14/2005	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	7/21/2006	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	8/12/1999	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	8/3/2000	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	8/19/2001	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	8/12/2003	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	8/7/2004	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	8/10/2008	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	8/14/2009	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/25/2015	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	9/6/1997	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	9/8/1997	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	9/17/2004	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	9/15/2005	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	9/13/2009	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	9/25/2012	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	10/6/1992	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	10/4/1995	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	10/22/1996	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	10/18/1998	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	10/27/1998	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	10/18/2002	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	10/23/2002	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	10/16/2003	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	10/12/2007	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	10/18/2012	11	0.94	10.29	2932	61.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50361.04474
5573540	6/27/1993	65	0.94	9.66	2962	61.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	47267.19476
5573540	6/29/2006	65	0.94	9.66	2962	61.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	47267.19476
5573540	5/20/1992	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	5/6/2000	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	7/17/2007	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	8/22/1992	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	8/23/1992	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	8/24/1992	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	8/25/1992	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	8/26/1992	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	8/27/1992	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	8/28/1992	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	8/17/1997	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	8/8/2004	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	8/10/2004	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/16/2008	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	8/19/2015	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	8/20/2015	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	9/3/1991	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	9/2/2001	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	10/3/1995	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	10/5/1995	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	10/22/1998	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	10/24/2002	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	10/2/2003	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	10/11/2006	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	10/15/2007	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	10/16/2007	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	10/3/2013	10	0.94	9.36	2964	61.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45782.76795
5573540	6/12/2007	9.9	0.94	9.26	2991	62.5078%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45324.94027
5573540	7/1/2005	9.9	0.94	9.26	2991	62.5078%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45324.94027
5573540	8/18/1990	9.9	0.94	9.26	2991	62.5078%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45324.94027
5573540	9/14/2009	9.9	0.94	9.26	2991	62.5078%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45324.94027
5573540	10/14/2004	9.9	0.94	9.26	2991	62.5078%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45324.94027
5573540	6/30/2001	9.8	0.94	9.17	2996	62.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	44867.11259
5573540	9/26/2011	9.8	0.94	9.17	2996	62.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	44867.11259
5573540	10/17/2012	9.8	0.94	9.17	2996	62.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	44867.11259
5573540	7/31/2004	9.7	0.94	9.07	2999	62.6750%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	44409.28491
5573540	7/2/2005	9.7	0.94	9.07	2999	62.6750%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	44409.28491
5573540	8/17/2014	9.7	0.94	9.07	2999	62.6750%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	44409.28491
5573540	9/28/2001	9.7	0.94	9.07	2999	62.6750%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	44409.28491
5573540	8/22/2014	9.6	0.94	8.98	3003	62.7586%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	43951.45723
5573540	10/17/2003	9.6	0.94	8.98	3003	62.7586%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	43951.45723
5573540	7/28/2007	9.5	0.94	8.89	3005	62.8004%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	43493.62955
5573540	6/24/1991	9.4	0.94	8.79	3006	62.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	43035.80187
5573540	7/1/2001	9.4	0.94	8.79	3006	62.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	43035.80187
5573540	9/9/2001	9.4	0.94	8.79	3006	62.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	43035.80187

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/30/2006	64	0.94	8.72	3009	62.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42667.12052
5573540	7/11/1999	64	0.94	8.72	3009	62.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42667.12052
5573540	7/6/2006	64	0.94	8.72	3009	62.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42667.12052
5573540	9/11/2008	64	0.94	8.72	3009	62.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42667.12052
5573540	5/3/2012	9.3	0.94	8.70	3013	62.9676%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42577.97419
5573540	8/30/1991	9.3	0.94	8.70	3013	62.9676%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42577.97419
5573540	8/26/2015	9.3	0.94	8.70	3013	62.9676%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42577.97419
5573540	9/8/2012	9.3	0.94	8.70	3013	62.9676%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42577.97419
5573540	7/2/2001	9.2	0.94	8.61	3017	63.0512%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42120.14651
5573540	7/10/2002	9.2	0.94	8.61	3017	63.0512%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42120.14651
5573540	10/5/2003	9.2	0.94	8.61	3017	63.0512%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42120.14651
5573540	6/11/2012	9.1	0.94	8.51	3020	63.1139%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	41662.31883
5573540	7/15/2001	9.1	0.94	8.51	3020	63.1139%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	41662.31883
5573540	8/21/2014	9.1	0.94	8.51	3020	63.1139%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	41662.31883
5573540	9/21/2004	9.1	0.94	8.51	3020	63.1139%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	41662.31883
5573540	10/5/1998	9.1	0.94	8.51	3020	63.1139%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	41662.31883
5573540	10/29/2002	9	0.94	8.42	3025	63.2184%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	41204.49115
5573540	10/18/2003	9	0.94	8.42	3025	63.2184%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	41204.49115
5573540	9/6/1994	8.9	0.94	8.33	3027	63.2602%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40746.66347
5573540	8/19/1999	8.8	0.94	8.23	3028	63.2811%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40288.83579
5573540	10/3/2003	8.8	0.94	8.23	3028	63.2811%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40288.83579
5573540	8/9/1997	8.7	0.94	8.14	3030	63.3229%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39831.00811
5573540	10/7/1998	8.7	0.94	8.14	3030	63.3229%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39831.00811
5573540	7/29/2007	8.6	0.94	8.05	3032	63.3647%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39373.18043
5573540	8/25/2004	8.6	0.94	8.05	3032	63.3647%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39373.18043
5573540	8/18/2015	8.6	0.94	8.05	3032	63.3647%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39373.18043
5573540	7/24/1997	8.5	0.94	7.95	3035	63.4274%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38915.35275
5573540	8/19/2002	8.5	0.94	7.95	3035	63.4274%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38915.35275
5573540	9/26/1996	8.5	0.94	7.95	3035	63.4274%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38915.35275
5573540	9/8/2007	8.5	0.94	7.95	3035	63.4274%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38915.35275
5573540	9/9/2014	8.5	0.94	7.95	3035	63.4274%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38915.35275
5573540	10/9/2004	8.5	0.94	7.95	3035	63.4274%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38915.35275

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/15/2004	8.5	0.94	7.95	3035	63.4274%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38915.35275
5573540	7/27/2002	8.4	0.94	7.86	3042	63.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38457.52507
5573540	8/18/2004	8.4	0.94	7.86	3042	63.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38457.52507
5573540	8/22/2008	8.4	0.94	7.86	3042	63.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38457.52507
5573540	10/19/2003	8.4	0.94	7.86	3042	63.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38457.52507
5573540	6/26/2005	63	0.94	7.78	3046	63.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38067.04628
5573540	7/16/2002	8.3	0.94	7.77	3047	63.6782%	Fecal_coliform	300	cfu/100mL	200	283.2	56999.54609	37999.6974
5573540	7/14/2012	8.3	0.94	7.77	3047	63.6782%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37999.6974
5573540	9/9/1997	8.3	0.94	7.77	3047	63.6782%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37999.6974
5573540	10/6/2001	8.3	0.94	7.77	3047	63.6782%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37999.6974
5573540	10/4/2003	8.3	0.94	7.77	3047	63.6782%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37999.6974
5573540	8/10/1991	8.2	0.94	7.67	3052	63.7827%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37541.86972
5573540	9/7/2001	8.2	0.94	7.67	3052	63.7827%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37541.86972
5573540	6/17/2007	8.1	0.94	7.58	3054	63.8245%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37084.04204
5573540	9/14/2005	8.1	0.94	7.58	3054	63.8245%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37084.04204
5573540	10/25/2002	8.1	0.94	7.58	3054	63.8245%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37084.04204
5573540	7/29/2004	8	0.94	7.48	3057	63.8871%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36626.21436
5573540	7/26/2005	8	0.94	7.48	3057	63.8871%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36626.21436
5573540	8/20/2010	8	0.94	7.48	3057	63.8871%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36626.21436
5573540	9/4/2011	8	0.94	7.48	3057	63.8871%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36626.21436
5573540	10/30/1991	8	0.94	7.48	3057	63.8871%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36626.21436
5573540	10/23/1998	8	0.94	7.48	3057	63.8871%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36626.21436
5573540	10/5/2012	8	0.94	7.48	3057	63.8871%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36626.21436
5573540	7/11/2007	7.9	0.94	7.39	3064	64.0334%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36168.38668
5573540	9/1/2010	7.9	0.94	7.39	3064	64.0334%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36168.38668
5573540	6/19/1995	7.8	0.94	7.30	3066	64.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35710.559
5573540	7/20/1994	7.8	0.94	7.30	3066	64.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35710.559
5573540	7/22/1999	7.8	0.94	7.30	3066	64.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35710.559
5573540	7/31/1999	7.8	0.94	7.30	3066	64.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35710.559
5573540	7/4/2001	7.8	0.94	7.30	3066	64.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35710.559
5573540	9/30/2004	7.8	0.94	7.30	3066	64.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35710.559
5573540	9/28/2005	7.8	0.94	7.30	3066	64.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35710.559

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/6/2004	7.8	0.94	7.30	3066	64.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35710.559
5573540	10/7/2004	7.8	0.94	7.30	3066	64.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35710.559
5573540	6/17/2012	7.7	0.94	7.20	3075	64.2633%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35252.73132
5573540	9/3/2011	7.7	0.94	7.20	3075	64.2633%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35252.73132
5573540	10/5/2004	7.7	0.94	7.20	3075	64.2633%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35252.73132
5573540	10/18/2007	7.7	0.94	7.20	3075	64.2633%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35252.73132
5573540	7/18/1997	7.6	0.94	7.11	3079	64.3469%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34794.90364
5573540	7/25/1997	7.6	0.94	7.11	3079	64.3469%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34794.90364
5573540	8/27/1997	7.6	0.94	7.11	3079	64.3469%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34794.90364
5573540	10/13/2011	7.6	0.94	7.11	3079	64.3469%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34794.90364
5573540	7/11/2001	7.5	0.94	7.02	3083	64.4305%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34337.07596
5573540	7/20/2005	7.5	0.94	7.02	3083	64.4305%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34337.07596
5573540	8/27/2015	7.5	0.94	7.02	3083	64.4305%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34337.07596
5573540	8/28/2015	7.5	0.94	7.02	3083	64.4305%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34337.07596
5573540	9/22/2009	7.5	0.94	7.02	3083	64.4305%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34337.07596
5573540	10/4/2004	7.5	0.94	7.02	3083	64.4305%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34337.07596
5573540	5/19/1992	7.4	0.94	6.92	3089	64.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33879.24828
5573540	7/8/2001	7.4	0.94	6.92	3089	64.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33879.24828
5573540	8/2/1997	7.4	0.94	6.92	3089	64.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33879.24828
5573540	10/6/1991	7.4	0.94	6.92	3089	64.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33879.24828
5573540	10/18/1996	7.4	0.94	6.92	3089	64.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33879.24828
5573540	10/26/1998	7.4	0.94	6.92	3089	64.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33879.24828
5573540	10/7/2001	7.4	0.94	6.92	3089	64.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33879.24828
5573540	10/1/2004	7.4	0.94	6.92	3089	64.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33879.24828
5573540	10/11/2004	7.4	0.94	6.92	3089	64.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33879.24828
5573540	5/4/2012	62	0.94	6.84	3098	64.7440%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33466.97204
5573540	6/27/1992	62	0.94	6.84	3098	64.7440%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33466.97204
5573540	6/6/2005	62	0.94	6.84	3098	64.7440%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33466.97204
5573540	7/7/1996	62	0.94	6.84	3098	64.7440%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33466.97204
5573540	8/11/2003	62	0.94	6.84	3098	64.7440%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33466.97204
5573540	9/13/1997	62	0.94	6.84	3098	64.7440%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33466.97204
5573540	8/17/2015	7.3	0.94	6.83	3104	64.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33421.4206

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/2/2004	7.3	0.94	6.83	3104	64.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33421.4206
5573540	10/3/2004	7.3	0.94	6.83	3104	64.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33421.4206
5573540	8/1/2000	7.2	0.94	6.74	3107	64.9321%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32963.59292
5573540	10/14/1997	7.2	0.94	6.74	3107	64.9321%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32963.59292
5573540	9/30/1999	7.1	0.94	6.64	3109	64.9739%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32505.76524
5573540	9/6/2014	7.1	0.94	6.64	3109	64.9739%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32505.76524
5573540	7/9/2002	7	0.94	6.55	3111	65.0157%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32047.93756
5573540	7/17/2005	7	0.94	6.55	3111	65.0157%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32047.93756
5573540	8/20/1997	7	0.94	6.55	3111	65.0157%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32047.93756
5573540	10/23/2000	7	0.94	6.55	3111	65.0157%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32047.93756
5573540	10/10/2004	7	0.94	6.55	3111	65.0157%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32047.93756
5573540	7/18/2001	6.9	0.94	6.46	3116	65.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31590.10988
5573540	9/21/1991	6.9	0.94	6.46	3116	65.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31590.10988
5573540	9/29/2004	6.9	0.94	6.46	3116	65.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31590.10988
5573540	10/24/1998	6.9	0.94	6.46	3116	65.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31590.10988
5573540	10/2/2009	6.9	0.94	6.46	3116	65.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31590.10988
5573540	7/28/1997	6.8	0.94	6.36	3121	65.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31132.2822
5573540	7/30/2007	6.8	0.94	6.36	3121	65.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31132.2822
5573540	8/3/1997	6.8	0.94	6.36	3121	65.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31132.2822
5573540	8/20/1999	6.8	0.94	6.36	3121	65.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31132.2822
5573540	9/22/2004	6.8	0.94	6.36	3121	65.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31132.2822
5573540	10/15/1997	6.8	0.94	6.36	3121	65.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31132.2822
5573540	10/19/2000	6.8	0.94	6.36	3121	65.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31132.2822
5573540	10/9/2001	6.8	0.94	6.36	3121	65.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31132.2822
5573540	6/16/1991	6.7	0.94	6.27	3129	65.3918%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30674.45452
5573540	7/21/1994	6.7	0.94	6.27	3129	65.3918%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30674.45452
5573540	7/26/1997	6.7	0.94	6.27	3129	65.3918%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30674.45452
5573540	7/27/1997	6.7	0.94	6.27	3129	65.3918%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30674.45452
5573540	8/31/1997	6.7	0.94	6.27	3129	65.3918%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30674.45452
5573540	9/18/2001	6.7	0.94	6.27	3129	65.3918%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30674.45452
5573540	9/24/2005	6.7	0.94	6.27	3129	65.3918%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30674.45452
5573540	9/20/2009	6.7	0.94	6.27	3129	65.3918%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30674.45452

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/26/1991	6.7	0.94	6.27	3129	65.3918%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30674.45452
5573540	9/23/2004	6.6	0.94	6.17	3138	65.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30216.62684
5573540	10/26/1997	6.6	0.94	6.17	3138	65.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30216.62684
5573540	10/25/1998	6.6	0.94	6.17	3138	65.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30216.62684
5573540	10/18/2011	6.6	0.94	6.17	3138	65.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30216.62684
5573540	8/16/1990	6.5	0.94	6.08	3142	65.6635%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29758.79916
5573540	8/17/2010	6.5	0.94	6.08	3142	65.6635%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29758.79916
5573540	8/18/2010	6.5	0.94	6.08	3142	65.6635%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29758.79916
5573540	9/5/1994	6.5	0.94	6.08	3142	65.6635%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29758.79916
5573540	9/11/2015	6.5	0.94	6.08	3142	65.6635%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29758.79916
5573540	10/31/1991	6.5	0.94	6.08	3142	65.6635%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29758.79916
5573540	10/13/1997	6.5	0.94	6.08	3142	65.6635%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29758.79916
5573540	10/27/1997	6.5	0.94	6.08	3142	65.6635%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29758.79916
5573540	10/4/2000	6.5	0.94	6.08	3142	65.6635%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29758.79916
5573540	7/11/1991	6.4	0.94	5.99	3151	65.8516%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29300.97149
5573540	8/1/1997	6.4	0.94	5.99	3151	65.8516%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29300.97149
5573540	9/20/2005	6.4	0.94	5.99	3151	65.8516%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29300.97149
5573540	10/16/1997	6.4	0.94	5.99	3151	65.8516%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29300.97149
5573540	10/8/2001	6.4	0.94	5.99	3151	65.8516%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29300.97149
5573540	5/14/2001	61	0.94	5.90	3156	65.9561%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28866.8978
5573540	7/19/2000	61	0.94	5.90	3156	65.9561%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28866.8978
5573540	8/3/2013	61	0.94	5.90	3156	65.9561%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28866.8978
5573540	8/18/2014	61	0.94	5.90	3156	65.9561%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28866.8978
5573540	9/9/2006	61	0.94	5.90	3156	65.9561%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28866.8978
5573540	9/27/2015	61	0.94	5.90	3156	65.9561%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28866.8978
5573540	8/10/1993	6.3	0.94	5.89	3162	66.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28843.14381
5573540	8/10/2000	6.3	0.94	5.89	3162	66.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28843.14381
5573540	9/17/1997	6.3	0.94	5.89	3162	66.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28843.14381
5573540	9/19/1997	6.3	0.94	5.89	3162	66.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28843.14381
5573540	9/3/2001	6.3	0.94	5.89	3162	66.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28843.14381
5573540	10/27/1991	6.3	0.94	5.89	3162	66.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28843.14381
5573540	8/17/2004	6.2	0.94	5.80	3168	66.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28385.31613

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/19/2004	6.2	0.94	5.80	3168	66.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28385.31613
5573540	10/17/1997	6.2	0.94	5.80	3168	66.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28385.31613
5573540	6/13/2007	6.1	0.94	5.71	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27927.48845
5573540	7/16/2001	6.1	0.94	5.71	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27927.48845
5573540	7/28/2001	6.1	0.94	5.71	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27927.48845
5573540	8/25/1995	6.1	0.94	5.71	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27927.48845
5573540	8/19/1997	6.1	0.94	5.71	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27927.48845
5573540	8/21/1999	6.1	0.94	5.71	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27927.48845
5573540	8/21/2004	6.1	0.94	5.71	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27927.48845
5573540	8/15/2009	6.1	0.94	5.71	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27927.48845
5573540	9/24/2004	6.1	0.94	5.71	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27927.48845
5573540	10/18/1997	6.1	0.94	5.71	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27927.48845
5573540	10/13/2000	6.1	0.94	5.71	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27927.48845
5573540	6/8/2012	6	0.94	5.61	3182	66.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27469.66077
5573540	8/25/1999	6	0.94	5.61	3182	66.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27469.66077
5573540	8/11/2004	6	0.94	5.61	3182	66.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27469.66077
5573540	8/17/2008	6	0.94	5.61	3182	66.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27469.66077
5573540	8/16/2009	6	0.94	5.61	3182	66.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27469.66077
5573540	8/15/2014	6	0.94	5.61	3182	66.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27469.66077
5573540	9/7/1990	6	0.94	5.61	3182	66.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27469.66077
5573540	10/19/1997	6	0.94	5.61	3182	66.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27469.66077
5573540	6/20/1991	5.9	0.94	5.52	3190	66.6667%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27011.83309
5573540	7/31/2007	5.9	0.94	5.52	3190	66.6667%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27011.83309
5573540	8/7/1999	5.9	0.94	5.52	3190	66.6667%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27011.83309
5573540	8/22/1999	5.9	0.94	5.52	3190	66.6667%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27011.83309
5573540	8/23/2004	5.9	0.94	5.52	3190	66.6667%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27011.83309
5573540	8/19/2010	5.9	0.94	5.52	3190	66.6667%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27011.83309
5573540	8/14/2014	5.9	0.94	5.52	3190	66.6667%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27011.83309
5573540	9/19/2002	5.9	0.94	5.52	3190	66.6667%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27011.83309
5573540	9/25/2004	5.9	0.94	5.52	3190	66.6667%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27011.83309
5573540	9/15/2009	5.9	0.94	5.52	3190	66.6667%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27011.83309
5573540	10/24/2012	5.9	0.94	5.52	3190	66.6667%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27011.83309

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/31/1997	5.8	0.94	5.43	3201	66.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26554.00541
5573540	7/21/2007	5.8	0.94	5.43	3201	66.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26554.00541
5573540	8/18/1997	5.8	0.94	5.43	3201	66.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26554.00541
5573540	8/12/1998	5.8	0.94	5.43	3201	66.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26554.00541
5573540	8/17/2009	5.8	0.94	5.43	3201	66.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26554.00541
5573540	9/20/1997	5.8	0.94	5.43	3201	66.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26554.00541
5573540	9/28/2004	5.8	0.94	5.43	3201	66.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26554.00541
5573540	10/4/1990	5.8	0.94	5.43	3201	66.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26554.00541
5573540	10/13/2012	5.8	0.94	5.43	3201	66.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26554.00541
5573540	6/16/2007	5.7	0.94	5.33	3210	67.0846%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26096.17773
5573540	7/29/1997	5.7	0.94	5.33	3210	67.0846%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26096.17773
5573540	7/23/1999	5.7	0.94	5.33	3210	67.0846%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26096.17773
5573540	8/10/1997	5.7	0.94	5.33	3210	67.0846%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26096.17773
5573540	8/1/1999	5.7	0.94	5.33	3210	67.0846%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26096.17773
5573540	8/16/2004	5.7	0.94	5.33	3210	67.0846%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26096.17773
5573540	8/18/2008	5.7	0.94	5.33	3210	67.0846%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26096.17773
5573540	8/16/2014	5.7	0.94	5.33	3210	67.0846%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26096.17773
5573540	9/26/2004	5.7	0.94	5.33	3210	67.0846%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26096.17773
5573540	9/27/2004	5.7	0.94	5.33	3210	67.0846%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26096.17773
5573540	9/18/2011	5.7	0.94	5.33	3210	67.0846%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26096.17773
5573540	10/20/1997	5.7	0.94	5.33	3210	67.0846%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26096.17773
5573540	10/4/2002	5.7	0.94	5.33	3210	67.0846%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26096.17773
5573540	6/12/1991	5.6	0.94	5.24	3223	67.3563%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25638.35005
5573540	7/12/2001	5.6	0.94	5.24	3223	67.3563%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25638.35005
5573540	9/25/1992	5.6	0.94	5.24	3223	67.3563%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25638.35005
5573540	9/29/2001	5.6	0.94	5.24	3223	67.3563%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25638.35005
5573540	9/28/2011	5.6	0.94	5.24	3223	67.3563%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25638.35005
5573540	10/3/1990	5.6	0.94	5.24	3223	67.3563%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25638.35005
5573540	10/21/1997	5.6	0.94	5.24	3223	67.3563%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25638.35005
5573540	10/1/2009	5.6	0.94	5.24	3223	67.3563%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25638.35005
5573540	10/2/2015	5.6	0.94	5.24	3223	67.3563%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25638.35005
5573540	7/29/1998	5.5	0.94	5.15	3232	67.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25180.52237

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/4/2000	5.5	0.94	5.15	3232	67.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25180.52237
5573540	9/27/1996	5.5	0.94	5.15	3232	67.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25180.52237
5573540	9/4/2001	5.5	0.94	5.15	3232	67.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25180.52237
5573540	9/17/2009	5.5	0.94	5.15	3232	67.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25180.52237
5573540	9/21/2009	5.5	0.94	5.15	3232	67.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25180.52237
5573540	10/26/2012	5.5	0.94	5.15	3232	67.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25180.52237
5573540	7/30/1997	5.4	0.94	5.05	3239	67.6907%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24722.69469
5573540	7/22/2006	5.4	0.94	5.05	3239	67.6907%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24722.69469
5573540	8/16/2001	5.4	0.94	5.05	3239	67.6907%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24722.69469
5573540	8/13/2005	5.4	0.94	5.05	3239	67.6907%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24722.69469
5573540	9/12/2000	5.4	0.94	5.05	3239	67.6907%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24722.69469
5573540	9/19/2011	5.4	0.94	5.05	3239	67.6907%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24722.69469
5573540	10/26/2010	5.4	0.94	5.05	3239	67.6907%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24722.69469
5573540	6/8/2005	60	0.94	4.96	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24266.82356
5573540	7/15/1996	60	0.94	4.96	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24266.82356
5573540	7/8/2002	60	0.94	4.96	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24266.82356
5573540	9/24/2006	60	0.94	4.96	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24266.82356
5573540	10/28/1995	60	0.94	4.96	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24266.82356
5573540	9/22/2012	5.3	0.94	4.96	3251	67.9415%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24264.86701
5573540	10/22/1997	5.3	0.94	4.96	3251	67.9415%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24264.86701
5573540	10/23/1997	5.3	0.94	4.96	3251	67.9415%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24264.86701
5573540	6/14/2007	5.2	0.94	4.86	3254	68.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23807.03933
5573540	6/9/2012	5.2	0.94	4.86	3254	68.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23807.03933
5573540	7/21/2005	5.2	0.94	4.86	3254	68.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23807.03933
5573540	8/31/1991	5.2	0.94	4.86	3254	68.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23807.03933
5573540	8/3/2001	5.2	0.94	4.86	3254	68.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23807.03933
5573540	8/25/2001	5.2	0.94	4.86	3254	68.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23807.03933
5573540	10/19/1996	5.2	0.94	4.86	3254	68.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23807.03933
5573540	10/24/1997	5.2	0.94	4.86	3254	68.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23807.03933
5573540	10/3/1999	5.2	0.94	4.86	3254	68.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23807.03933
5573540	10/10/1999	5.2	0.94	4.86	3254	68.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23807.03933
5573540	10/15/2012	5.2	0.94	4.86	3254	68.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23807.03933

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/26/2000	5.1	0.94	4.77	3265	68.2341%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23349.21165
5573540	10/29/1991	5.1	0.94	4.77	3265	68.2341%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23349.21165
5573540	10/28/1997	5.1	0.94	4.77	3265	68.2341%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23349.21165
5573540	10/10/2006	5.1	0.94	4.77	3265	68.2341%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23349.21165
5573540	10/3/2015	5.1	0.94	4.77	3265	68.2341%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23349.21165
5573540	8/16/2002	5	0.94	4.68	3270	68.3386%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22891.38397
5573540	10/25/1997	5	0.94	4.68	3270	68.3386%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22891.38397
5573540	10/7/2009	5	0.94	4.68	3270	68.3386%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22891.38397
5573540	6/15/2007	4.9	0.94	4.58	3273	68.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22433.55629
5573540	7/2/1994	4.9	0.94	4.58	3273	68.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22433.55629
5573540	7/24/1999	4.9	0.94	4.58	3273	68.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22433.55629
5573540	7/17/2001	4.9	0.94	4.58	3273	68.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22433.55629
5573540	8/21/1998	4.9	0.94	4.58	3273	68.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22433.55629
5573540	8/12/2004	4.9	0.94	4.58	3273	68.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22433.55629
5573540	8/15/2004	4.9	0.94	4.58	3273	68.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22433.55629
5573540	8/18/2009	4.9	0.94	4.58	3273	68.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22433.55629
5573540	9/10/2000	4.9	0.94	4.58	3273	68.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22433.55629
5573540	10/28/1991	4.9	0.94	4.58	3273	68.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22433.55629
5573540	10/10/1997	4.9	0.94	4.58	3273	68.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22433.55629
5573540	10/11/1997	4.9	0.94	4.58	3273	68.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22433.55629
5573540	10/12/1997	4.9	0.94	4.58	3273	68.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22433.55629
5573540	10/16/2004	4.9	0.94	4.58	3273	68.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22433.55629
5573540	8/22/2004	4.8	0.94	4.49	3287	68.6938%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21975.72861
5573540	8/1/2007	4.8	0.94	4.49	3287	68.6938%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21975.72861
5573540	9/26/1992	4.8	0.94	4.49	3287	68.6938%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21975.72861
5573540	9/18/2009	4.8	0.94	4.49	3287	68.6938%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21975.72861
5573540	7/26/1999	4.7	0.94	4.40	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21517.90093
5573540	7/18/2007	4.7	0.94	4.40	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21517.90093
5573540	8/2/1999	4.7	0.94	4.40	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21517.90093
5573540	9/7/1997	4.7	0.94	4.40	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21517.90093
5573540	9/19/2009	4.7	0.94	4.40	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21517.90093
5573540	10/3/2007	4.7	0.94	4.40	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21517.90093

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/12/2011	4.7	0.94	4.40	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21517.90093
5573540	5/27/2012	4.6	0.94	4.30	3298	68.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21060.07326
5573540	7/19/2001	4.6	0.94	4.30	3298	68.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21060.07326
5573540	8/4/1997	4.6	0.94	4.30	3298	68.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21060.07326
5573540	9/23/2009	4.6	0.94	4.30	3298	68.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21060.07326
5573540	10/17/1996	4.6	0.94	4.30	3298	68.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21060.07326
5573540	10/1/2006	4.6	0.94	4.30	3298	68.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21060.07326
5573540	7/25/1999	4.5	0.94	4.21	3304	69.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20602.24558
5573540	7/11/2002	4.5	0.94	4.21	3304	69.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20602.24558
5573540	7/20/2007	4.5	0.94	4.21	3304	69.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20602.24558
5573540	8/11/1997	4.5	0.94	4.21	3304	69.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20602.24558
5573540	8/13/2004	4.5	0.94	4.21	3304	69.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20602.24558
5573540	8/14/2004	4.5	0.94	4.21	3304	69.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20602.24558
5573540	8/29/2015	4.5	0.94	4.21	3304	69.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20602.24558
5573540	9/3/1992	4.5	0.94	4.21	3304	69.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20602.24558
5573540	9/14/1992	4.5	0.94	4.21	3304	69.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20602.24558
5573540	9/4/2002	4.5	0.94	4.21	3304	69.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20602.24558
5573540	9/10/2011	4.5	0.94	4.21	3304	69.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20602.24558
5573540	9/14/2011	4.5	0.94	4.21	3304	69.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20602.24558
5573540	10/9/1997	4.5	0.94	4.21	3304	69.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20602.24558
5573540	8/11/2000	4.4	0.94	4.12	3317	69.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20144.4179
5573540	8/23/2000	4.4	0.94	4.12	3317	69.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20144.4179
5573540	8/4/2001	4.4	0.94	4.12	3317	69.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20144.4179
5573540	8/19/2008	4.4	0.94	4.12	3317	69.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20144.4179
5573540	9/5/2001	4.4	0.94	4.12	3317	69.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20144.4179
5573540	10/29/1997	4.4	0.94	4.12	3317	69.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20144.4179
5573540	10/17/2004	4.4	0.94	4.12	3317	69.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20144.4179
5573540	7/16/1991	4.3	0.94	4.02	3324	69.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19686.59022
5573540	7/20/2001	4.3	0.94	4.02	3324	69.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19686.59022
5573540	7/26/2001	4.3	0.94	4.02	3324	69.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19686.59022
5573540	7/12/2007	4.3	0.94	4.02	3324	69.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19686.59022
5573540	8/8/1999	4.3	0.94	4.02	3324	69.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19686.59022

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/17/2012	4.3	0.94	4.02	3324	69.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19686.59022
5573540	9/25/2009	4.3	0.94	4.02	3324	69.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19686.59022
5573540	9/7/2014	4.3	0.94	4.02	3324	69.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19686.59022
5573540	10/24/1996	4.3	0.94	4.02	3324	69.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19686.59022
5573540	10/30/2002	4.3	0.94	4.02	3324	69.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19686.59022
5573540	10/31/2002	4.3	0.94	4.02	3324	69.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19686.59022
5573540	7/21/1997	59	0.94	4.02	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19666.74932
5573540	7/5/2001	59	0.94	4.02	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19666.74932
5573540	8/3/1990	59	0.94	4.02	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19666.74932
5573540	8/26/2014	59	0.94	4.02	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19666.74932
5573540	9/8/2006	59	0.94	4.02	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19666.74932
5573540	10/21/2009	59	0.94	4.02	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19666.74932
5573540	6/20/1995	4.2	0.94	3.93	3341	69.8224%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19228.76254
5573540	6/13/2012	4.2	0.94	3.93	3341	69.8224%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19228.76254
5573540	7/17/2011	4.2	0.94	3.93	3341	69.8224%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19228.76254
5573540	7/24/2011	4.2	0.94	3.93	3341	69.8224%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19228.76254
5573540	8/15/1997	4.2	0.94	3.93	3341	69.8224%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19228.76254
5573540	8/3/1999	4.2	0.94	3.93	3341	69.8224%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19228.76254
5573540	8/27/2003	4.2	0.94	3.93	3341	69.8224%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19228.76254
5573540	8/15/2011	4.2	0.94	3.93	3341	69.8224%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19228.76254
5573540	8/31/2011	4.2	0.94	3.93	3341	69.8224%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19228.76254
5573540	5/28/2012	4.1	0.94	3.84	3350	70.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18770.93486
5573540	7/25/2001	4.1	0.94	3.84	3350	70.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18770.93486
5573540	7/22/2005	4.1	0.94	3.84	3350	70.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18770.93486
5573540	7/25/2006	4.1	0.94	3.84	3350	70.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18770.93486
5573540	7/19/2007	4.1	0.94	3.84	3350	70.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18770.93486
5573540	8/14/1998	4.1	0.94	3.84	3350	70.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18770.93486
5573540	8/27/1999	4.1	0.94	3.84	3350	70.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18770.93486
5573540	8/1/2001	4.1	0.94	3.84	3350	70.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18770.93486
5573540	8/26/2003	4.1	0.94	3.84	3350	70.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18770.93486
5573540	8/16/2011	4.1	0.94	3.84	3350	70.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18770.93486
5573540	9/8/1990	4.1	0.94	3.84	3350	70.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18770.93486

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/4/1991	4.1	0.94	3.84	3350	70.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18770.93486
5573540	9/26/2009	4.1	0.94	3.84	3350	70.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18770.93486
5573540	10/5/1990	4.1	0.94	3.84	3350	70.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18770.93486
5573540	10/20/1996	4.1	0.94	3.84	3350	70.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18770.93486
5573540	10/4/1999	4.1	0.94	3.84	3350	70.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18770.93486
5573540	10/22/2005	4.1	0.94	3.84	3350	70.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18770.93486
5573540	10/7/2006	4.1	0.94	3.84	3350	70.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18770.93486
5573540	7/21/2001	4	0.94	3.74	3368	70.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18313.10718
5573540	7/22/2001	4	0.94	3.74	3368	70.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18313.10718
5573540	7/23/2001	4	0.94	3.74	3368	70.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18313.10718
5573540	7/30/2001	4	0.94	3.74	3368	70.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18313.10718
5573540	8/26/1999	4	0.94	3.74	3368	70.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18313.10718
5573540	8/26/2000	4	0.94	3.74	3368	70.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18313.10718
5573540	8/24/2010	4	0.94	3.74	3368	70.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18313.10718
5573540	9/24/2009	4	0.94	3.74	3368	70.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18313.10718
5573540	10/19/2011	4	0.94	3.74	3368	70.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18313.10718
5573540	5/5/2000	3.9	0.94	3.65	3377	70.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17855.2795
5573540	5/26/2012	3.9	0.94	3.65	3377	70.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17855.2795
5573540	7/31/2001	3.9	0.94	3.65	3377	70.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17855.2795
5573540	7/13/2007	3.9	0.94	3.65	3377	70.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17855.2795
5573540	8/17/1995	3.9	0.94	3.65	3377	70.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17855.2795
5573540	8/5/1997	3.9	0.94	3.65	3377	70.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17855.2795
5573540	8/6/1997	3.9	0.94	3.65	3377	70.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17855.2795
5573540	8/12/1997	3.9	0.94	3.65	3377	70.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17855.2795
5573540	8/22/2000	3.9	0.94	3.65	3377	70.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17855.2795
5573540	8/13/2001	3.9	0.94	3.65	3377	70.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17855.2795
5573540	8/20/2001	3.9	0.94	3.65	3377	70.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17855.2795
5573540	8/13/2003	3.9	0.94	3.65	3377	70.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17855.2795
5573540	8/20/2003	3.9	0.94	3.65	3377	70.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17855.2795
5573540	8/21/2003	3.9	0.94	3.65	3377	70.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17855.2795
5573540	8/25/2003	3.9	0.94	3.65	3377	70.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17855.2795
5573540	9/21/1997	3.9	0.94	3.65	3377	70.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17855.2795

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/11/2010	3.9	0.94	3.65	3377	70.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17855.2795
5573540	10/6/2006	3.9	0.94	3.65	3377	70.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17855.2795
5573540	10/17/2011	3.9	0.94	3.65	3377	70.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17855.2795
5573540	10/27/2015	3.9	0.94	3.65	3377	70.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17855.2795
5573540	6/30/1994	3.8	0.94	3.56	3397	70.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17397.45182
5573540	7/27/2005	3.8	0.94	3.56	3397	70.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17397.45182
5573540	7/18/2011	3.8	0.94	3.56	3397	70.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17397.45182
5573540	8/17/1996	3.8	0.94	3.56	3397	70.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17397.45182
5573540	8/5/2001	3.8	0.94	3.56	3397	70.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17397.45182
5573540	8/14/2001	3.8	0.94	3.56	3397	70.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17397.45182
5573540	8/16/2003	3.8	0.94	3.56	3397	70.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17397.45182
5573540	8/22/2003	3.8	0.94	3.56	3397	70.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17397.45182
5573540	9/17/2002	3.8	0.94	3.56	3397	70.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17397.45182
5573540	9/27/2009	3.8	0.94	3.56	3397	70.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17397.45182
5573540	9/18/2012	3.8	0.94	3.56	3397	70.9927%	Fecal_coliform	10	cfu/100mL	200	283.2	869.872591	17397.45182
5573540	10/3/1991	3.8	0.94	3.56	3397	70.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17397.45182
5573540	10/7/1991	3.8	0.94	3.56	3397	70.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17397.45182
5573540	10/25/1991	3.8	0.94	3.56	3397	70.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17397.45182
5573540	10/30/1997	3.8	0.94	3.56	3397	70.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17397.45182
5573540	10/8/2005	3.8	0.94	3.56	3397	70.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17397.45182
5573540	10/3/2009	3.8	0.94	3.56	3397	70.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17397.45182
5573540	10/20/2011	3.8	0.94	3.56	3397	70.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17397.45182
5573540	5/25/2012	3.7	0.94	3.46	3415	71.3689%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16939.62414
5573540	7/12/1995	3.7	0.94	3.46	3415	71.3689%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16939.62414
5573540	7/24/2001	3.7	0.94	3.46	3415	71.3689%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16939.62414
5573540	7/24/2006	3.7	0.94	3.46	3415	71.3689%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16939.62414
5573540	8/16/1997	3.7	0.94	3.46	3415	71.3689%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16939.62414
5573540	8/4/1999	3.7	0.94	3.46	3415	71.3689%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16939.62414
5573540	8/7/2001	3.7	0.94	3.46	3415	71.3689%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16939.62414
5573540	8/9/2001	3.7	0.94	3.46	3415	71.3689%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16939.62414
5573540	8/12/2001	3.7	0.94	3.46	3415	71.3689%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16939.62414
5573540	8/15/2001	3.7	0.94	3.46	3415	71.3689%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16939.62414

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/26/2001	3.7	0.94	3.46	3415	71.3689%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16939.62414
5573540	8/14/2003	3.7	0.94	3.46	3415	71.3689%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16939.62414
5573540	8/15/2003	3.7	0.94	3.46	3415	71.3689%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16939.62414
5573540	8/19/2003	3.7	0.94	3.46	3415	71.3689%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16939.62414
5573540	8/24/2003	3.7	0.94	3.46	3415	71.3689%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16939.62414
5573540	8/28/2003	3.7	0.94	3.46	3415	71.3689%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16939.62414
5573540	8/30/2003	3.7	0.94	3.46	3415	71.3689%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16939.62414
5573540	9/8/2014	3.7	0.94	3.46	3415	71.3689%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16939.62414
5573540	10/31/1997	3.7	0.94	3.46	3415	71.3689%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16939.62414
5573540	10/2/2010	3.7	0.94	3.46	3415	71.3689%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16939.62414
5573540	7/27/2001	3.6	0.94	3.37	3435	71.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16481.79646
5573540	8/8/1997	3.6	0.94	3.37	3435	71.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16481.79646
5573540	8/6/2001	3.6	0.94	3.37	3435	71.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16481.79646
5573540	8/8/2001	3.6	0.94	3.37	3435	71.7868%	Fecal_coliform	10	cfu/100mL	200	283.2	824.089823	16481.79646
5573540	8/10/2001	3.6	0.94	3.37	3435	71.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16481.79646
5573540	8/11/2001	3.6	0.94	3.37	3435	71.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16481.79646
5573540	8/18/2002	3.6	0.94	3.37	3435	71.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16481.79646
5573540	8/14/2005	3.6	0.94	3.37	3435	71.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16481.79646
5573540	8/18/2011	3.6	0.94	3.37	3435	71.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16481.79646
5573540	9/19/1990	3.6	0.94	3.37	3435	71.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16481.79646
5573540	9/4/1992	3.6	0.94	3.37	3435	71.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16481.79646
5573540	9/16/2009	3.6	0.94	3.37	3435	71.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16481.79646
5573540	10/8/1997	3.6	0.94	3.37	3435	71.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16481.79646
5573540	10/8/2006	3.6	0.94	3.37	3435	71.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16481.79646
5573540	10/4/2009	3.6	0.94	3.37	3435	71.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16481.79646
5573540	6/25/1991	3.5	0.94	3.27	3450	72.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16023.96878
5573540	8/7/1997	3.5	0.94	3.27	3450	72.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16023.96878
5573540	8/12/2000	3.5	0.94	3.27	3450	72.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16023.96878
5573540	8/23/2003	3.5	0.94	3.27	3450	72.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16023.96878
5573540	8/16/2015	3.5	0.94	3.27	3450	72.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16023.96878
5573540	9/1/1997	3.5	0.94	3.27	3450	72.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16023.96878
5573540	9/14/2000	3.5	0.94	3.27	3450	72.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16023.96878

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/8/2001	3.5	0.94	3.27	3450	72.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16023.96878
5573540	9/21/2001	3.5	0.94	3.27	3450	72.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16023.96878
5573540	9/29/2005	3.5	0.94	3.27	3450	72.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16023.96878
5573540	10/6/1990	3.5	0.94	3.27	3450	72.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16023.96878
5573540	10/24/1991	3.5	0.94	3.27	3450	72.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16023.96878
5573540	10/21/1996	3.5	0.94	3.27	3450	72.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16023.96878
5573540	10/28/2015	3.5	0.94	3.27	3450	72.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16023.96878
5573540	7/25/2011	3.4	0.94	3.18	3464	72.3929%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15566.1411
5573540	7/27/2011	3.4	0.94	3.18	3464	72.3929%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15566.1411
5573540	8/30/1998	3.4	0.94	3.18	3464	72.3929%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15566.1411
5573540	8/2/2007	3.4	0.94	3.18	3464	72.3929%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15566.1411
5573540	8/31/2010	3.4	0.94	3.18	3464	72.3929%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15566.1411
5573540	8/5/2013	3.4	0.94	3.18	3464	72.3929%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15566.1411
5573540	9/23/1997	3.4	0.94	3.18	3464	72.3929%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15566.1411
5573540	9/24/1997	3.4	0.94	3.18	3464	72.3929%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15566.1411
5573540	9/10/2001	3.4	0.94	3.18	3464	72.3929%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15566.1411
5573540	9/15/2011	3.4	0.94	3.18	3464	72.3929%	Fecal_coliform	90	cfu/100mL	200	283.2	7004.763496	15566.1411
5573540	10/7/1997	3.4	0.94	3.18	3464	72.3929%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15566.1411
5573540	10/1/1999	3.4	0.94	3.18	3464	72.3929%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15566.1411
5573540	10/5/2009	3.4	0.94	3.18	3464	72.3929%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15566.1411
5573540	10/4/2013	3.4	0.94	3.18	3464	72.3929%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15566.1411
5573540	6/12/2012	3.3	0.94	3.09	3478	72.6855%	Fecal_coliform	19	cfu/100mL	200	283.2	1435.289775	15108.31342
5573540	8/13/1997	3.3	0.94	3.09	3478	72.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15108.31342
5573540	8/5/1999	3.3	0.94	3.09	3478	72.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15108.31342
5573540	8/19/2000	3.3	0.94	3.09	3478	72.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15108.31342
5573540	8/21/2001	3.3	0.94	3.09	3478	72.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15108.31342
5573540	8/22/2001	3.3	0.94	3.09	3478	72.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15108.31342
5573540	8/4/2007	3.3	0.94	3.09	3478	72.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15108.31342
5573540	8/15/2015	3.3	0.94	3.09	3478	72.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15108.31342
5573540	8/30/2015	3.3	0.94	3.09	3478	72.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15108.31342
5573540	9/5/1992	3.3	0.94	3.09	3478	72.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15108.31342
5573540	9/8/1992	3.3	0.94	3.09	3478	72.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15108.31342

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/19/2001	3.3	0.94	3.09	3478	72.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15108.31342
5573540	9/10/2013	3.3	0.94	3.09	3478	72.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15108.31342
5573540	10/15/1992	3.3	0.94	3.09	3478	72.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15108.31342
5573540	10/8/1998	3.3	0.94	3.09	3478	72.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15108.31342
5573540	10/17/1998	3.3	0.94	3.09	3478	72.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15108.31342
5573540	10/20/2002	3.3	0.94	3.09	3478	72.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15108.31342
5573540	10/23/2007	3.3	0.94	3.09	3478	72.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15108.31342
5573540	9/23/2006	58	0.94	3.08	3496	73.0617%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15066.67508
5573540	10/5/2000	58	0.94	3.08	3496	73.0617%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15066.67508
5573540	7/23/2005	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	7/14/2007	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	7/19/2011	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	8/6/1999	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	8/9/1999	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	8/10/1999	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	8/28/1999	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	8/13/2000	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	8/24/2000	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	8/17/2001	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	8/27/2001	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	8/29/2001	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	8/22/2005	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	8/20/2008	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	8/25/2010	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	9/24/1992	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	9/25/1999	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	9/26/1999	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	9/28/2009	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	9/12/2011	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	9/8/2013	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	9/8/2015	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	10/7/1992	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/8/1992	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	10/26/2002	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	10/9/2006	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	10/25/2010	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	10/30/2013	3.2	0.94	2.99	3498	73.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14650.48574
5573540	7/15/2012	3.1	0.94	2.90	3526	73.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14192.65806
5573540	8/14/1997	3.1	0.94	2.90	3526	73.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14192.65806
5573540	8/29/1999	3.1	0.94	2.90	3526	73.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14192.65806
5573540	8/17/2003	3.1	0.94	2.90	3526	73.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14192.65806
5573540	8/18/2003	3.1	0.94	2.90	3526	73.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14192.65806
5573540	8/26/2010	3.1	0.94	2.90	3526	73.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14192.65806
5573540	8/27/2010	3.1	0.94	2.90	3526	73.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14192.65806
5573540	8/30/2010	3.1	0.94	2.90	3526	73.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14192.65806
5573540	8/14/2011	3.1	0.94	2.90	3526	73.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14192.65806
5573540	9/6/1992	3.1	0.94	2.90	3526	73.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14192.65806
5573540	9/18/1997	3.1	0.94	2.90	3526	73.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14192.65806
5573540	9/22/1997	3.1	0.94	2.90	3526	73.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14192.65806
5573540	9/12/1999	3.1	0.94	2.90	3526	73.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14192.65806
5573540	9/27/1999	3.1	0.94	2.90	3526	73.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14192.65806
5573540	9/3/2000	3.1	0.94	2.90	3526	73.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14192.65806
5573540	9/9/2013	3.1	0.94	2.90	3526	73.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14192.65806
5573540	10/19/1991	3.1	0.94	2.90	3526	73.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14192.65806
5573540	10/1/1992	3.1	0.94	2.90	3526	73.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14192.65806
5573540	10/13/2007	3.1	0.94	2.90	3526	73.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14192.65806
5573540	6/14/2012	3	0.94	2.81	3545	74.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13734.83038
5573540	7/23/2006	3	0.94	2.81	3545	74.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13734.83038
5573540	8/11/1999	3	0.94	2.81	3545	74.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13734.83038
5573540	8/5/2007	3	0.94	2.81	3545	74.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13734.83038
5573540	8/20/2007	3	0.94	2.81	3545	74.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13734.83038
5573540	8/30/2011	3	0.94	2.81	3545	74.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13734.83038
5573540	8/31/2015	3	0.94	2.81	3545	74.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13734.83038
5573540	9/27/2000	3	0.94	2.81	3545	74.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13734.83038

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/29/2009	3	0.94	2.81	3545	74.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13734.83038
5573540	9/30/2009	3	0.94	2.81	3545	74.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13734.83038
5573540	9/5/2012	3	0.94	2.81	3545	74.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13734.83038
5573540	9/26/2012	3	0.94	2.81	3545	74.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13734.83038
5573540	10/8/1991	3	0.94	2.81	3545	74.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13734.83038
5573540	10/20/1991	3	0.94	2.81	3545	74.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13734.83038
5573540	10/23/1991	3	0.94	2.81	3545	74.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13734.83038
5573540	10/30/1996	3	0.94	2.81	3545	74.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13734.83038
5573540	10/6/1997	3	0.94	2.81	3545	74.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13734.83038
5573540	10/1/1998	3	0.94	2.81	3545	74.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13734.83038
5573540	10/12/2006	3	0.94	2.81	3545	74.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13734.83038
5573540	10/24/2010	3	0.94	2.81	3545	74.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13734.83038
5573540	6/16/2012	2.9	0.94	2.71	3565	74.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13277.0027
5573540	8/14/2000	2.9	0.94	2.71	3565	74.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13277.0027
5573540	8/15/2000	2.9	0.94	2.71	3565	74.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13277.0027
5573540	8/16/2000	2.9	0.94	2.71	3565	74.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13277.0027
5573540	8/27/2000	2.9	0.94	2.71	3565	74.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13277.0027
5573540	8/29/2000	2.9	0.94	2.71	3565	74.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13277.0027
5573540	8/28/2010	2.9	0.94	2.71	3565	74.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13277.0027
5573540	8/17/2011	2.9	0.94	2.71	3565	74.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13277.0027
5573540	8/29/2011	2.9	0.94	2.71	3565	74.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13277.0027
5573540	8/12/2015	2.9	0.94	2.71	3565	74.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13277.0027
5573540	9/9/1990	2.9	0.94	2.71	3565	74.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13277.0027
5573540	9/21/1990	2.9	0.94	2.71	3565	74.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13277.0027
5573540	9/7/1992	2.9	0.94	2.71	3565	74.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13277.0027
5573540	9/23/1992	2.9	0.94	2.71	3565	74.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13277.0027
5573540	9/1/2000	2.9	0.94	2.71	3565	74.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13277.0027
5573540	9/2/2000	2.9	0.94	2.71	3565	74.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13277.0027
5573540	9/7/2007	2.9	0.94	2.71	3565	74.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13277.0027
5573540	9/11/2011	2.9	0.94	2.71	3565	74.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13277.0027
5573540	10/5/1999	2.9	0.94	2.71	3565	74.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13277.0027
5573540	10/7/1999	2.9	0.94	2.71	3565	74.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13277.0027

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/25/2012	2.9	0.94	2.71	3565	74.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13277.0027
5573540	7/24/2005	2.8	0.94	2.62	3586	74.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12819.17502
5573540	7/15/2007	2.8	0.94	2.62	3586	74.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12819.17502
5573540	8/25/2000	2.8	0.94	2.62	3586	74.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12819.17502
5573540	8/28/2000	2.8	0.94	2.62	3586	74.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12819.17502
5573540	8/31/2000	2.8	0.94	2.62	3586	74.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12819.17502
5573540	8/11/2005	2.8	0.94	2.62	3586	74.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12819.17502
5573540	8/23/2008	2.8	0.94	2.62	3586	74.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12819.17502
5573540	8/6/2013	2.8	0.94	2.62	3586	74.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12819.17502
5573540	9/22/1990	2.8	0.94	2.62	3586	74.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12819.17502
5573540	9/24/1999	2.8	0.94	2.62	3586	74.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12819.17502
5573540	9/4/2000	2.8	0.94	2.62	3586	74.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12819.17502
5573540	9/26/2010	2.8	0.94	2.62	3586	74.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12819.17502
5573540	9/1/2015	2.8	0.94	2.62	3586	74.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12819.17502
5573540	10/21/1991	2.8	0.94	2.62	3586	74.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12819.17502
5573540	10/9/1992	2.8	0.94	2.62	3586	74.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12819.17502
5573540	10/5/1997	2.8	0.94	2.62	3586	74.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12819.17502
5573540	10/31/1999	2.8	0.94	2.62	3586	74.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12819.17502
5573540	5/3/2003	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	7/16/2007	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	7/20/2011	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	8/30/1999	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	8/20/2000	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	8/21/2000	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	8/30/2000	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	8/29/2010	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	8/7/2013	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	8/12/2013	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	9/25/1997	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	9/2/1999	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	9/3/1999	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	9/13/1999	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/22/1999	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	9/23/1999	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	9/5/2000	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	9/6/2000	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	9/7/2000	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	40	cfu/100mL	200	283.2	2472.269469	12361.34735
5573540	9/11/2001	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	9/27/2005	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	10/22/1991	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	10/10/1992	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	10/2/1995	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	10/14/1996	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	10/15/1996	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	10/31/1996	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	10/19/2010	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	10/20/2010	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	10/23/2010	2.7	0.94	2.53	3603	75.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12361.34735
5573540	7/21/2011	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	7/31/2011	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	8/31/1999	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	8/9/2005	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	8/10/2005	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	8/3/2007	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	8/16/2007	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	8/28/2011	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	8/9/2013	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	8/11/2013	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	8/16/2013	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	8/17/2013	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	9/20/1992	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	9/4/1999	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	9/11/1999	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	9/18/1999	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/19/1999	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	9/20/1999	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	9/12/2013	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	9/20/2013	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	10/11/1992	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	10/12/1992	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	10/13/1992	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	10/14/1992	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	10/31/1994	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	10/16/1996	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	10/4/1997	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	10/2/1998	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	10/6/1999	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	10/13/2006	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	10/26/2007	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	10/18/2010	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	10/21/2010	2.6	0.94	2.43	3633	75.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11903.51967
5573540	6/15/2012	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	8/3/2005	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	8/4/2005	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	8/8/2005	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	8/21/2008	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	8/8/2013	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	8/13/2013	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	8/18/2013	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	8/19/2013	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	8/20/2013	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	8/23/2013	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	8/13/2015	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	9/14/1990	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	9/20/1990	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	9/1/1991	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/15/1992	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	9/23/1994	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	9/1/1999	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	9/5/1999	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	9/17/1999	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	9/21/1999	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	9/8/2000	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	9/7/2005	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	9/7/2013	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	10/12/1996	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	10/13/1996	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	10/4/1998	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	10/2/1999	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	10/23/2005	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	10/5/2006	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	10/12/2010	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	10/27/2010	2.5	0.94	2.34	3666	76.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11445.69199
5573540	5/15/2001	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	7/25/2005	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	7/26/2011	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	40	cfu/100mL	200	283.2	2197.572861	10987.86431
5573540	7/28/2011	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	7/8/2012	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	8/11/1991	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	8/1/1996	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	8/22/2002	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	8/1/2011	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	8/13/2011	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	8/27/2011	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	8/10/2013	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	8/14/2013	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	8/15/2013	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	8/21/2013	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/22/2013	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	8/24/2013	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	9/15/1990	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	9/6/1999	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	9/7/1999	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	9/8/1999	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	9/14/1999	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	9/16/1999	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	9/9/2000	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	9/22/2000	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	9/28/2000	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	9/12/2001	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	9/5/2011	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	9/13/2011	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	9/29/2011	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	9/13/2013	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	9/14/2013	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	10/9/1991	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	10/25/1996	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	10/28/2002	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	10/14/2006	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	10/13/2010	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	10/22/2010	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	10/31/2015	2.4	0.94	2.25	3698	77.2832%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10987.86431
5573540	5/1/2001	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	7/17/1991	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	7/30/2011	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	8/28/2001	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	8/2/2005	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	49	cfu/100mL	200	283.2	2579.858974	10530.03663
5573540	8/26/2011	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	9/7/1994	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	9/9/1999	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	10	cfu/100mL	200	283.2	526.5018314	10530.03663

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/10/1999	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	9/15/1999	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	9/14/2001	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	9/20/2001	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	9/16/2005	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	9/11/2013	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	9/21/2013	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	10/18/1991	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	10/28/1992	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	10/29/1992	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	10/10/1996	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	10/11/1996	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	10/3/1997	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	10/3/1998	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	10/30/1999	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	10/3/2000	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	10/15/2006	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	10/17/2007	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	10/11/2010	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	10/4/2015	2.3	0.94	2.15	3737	78.0982%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10530.03663
5573540	8/14/2008	57	0.94	2.14	3765	78.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10466.60084
5573540	8/3/2010	57	0.94	2.14	3765	78.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10466.60084
5573540	7/22/2011	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	7/29/2011	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	8/10/1990	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	8/13/1994	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	8/24/1998	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	8/5/2005	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	8/7/2005	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	8/15/2005	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	8/6/2007	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	8/25/2013	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/13/1990	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	9/16/1992	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	9/28/1996	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	9/17/2001	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	9/5/2002	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	9/20/2011	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	9/5/2015	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	9/19/2015	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	10/9/1994	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	10/1/1995	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	10/8/1996	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	10/9/1996	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	10/29/1996	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	10/2/2000	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	10/2/2006	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	10/1/2007	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	10/18/2015	2.2	0.94	2.06	3767	78.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10072.20895
5573540	6/26/1991	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	8/26/1995	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	8/22/1998	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	8/1/2005	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	8/6/2005	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	8/24/2008	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	8/4/2011	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	8/5/2011	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	8/10/2011	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	8/26/2013	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	8/27/2013	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	9.8	cfu/100mL	200	283.2	471.1046822	9614.381269
5573540	8/28/2013	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	9/10/1990	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	9/20/2000	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	9/29/2000	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/30/2000	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	9/15/2001	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	9/16/2001	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	9/22/2001	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	9/26/2007	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	10/15/1991	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	10/16/1991	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	10/17/1991	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	10/27/1992	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	10/26/1996	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	10/27/1996	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	10/1/2000	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	10/29/2005	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	10/15/2010	2.1	0.94	1.96	3794	79.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9614.381269
5573540	7/1/1994	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	7/22/1994	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	7/22/2002	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	8/18/2005	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	8/26/2008	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	8/19/2011	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	8/29/2013	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	8/30/2013	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	9/12/1990	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	9/18/1990	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	9/17/1992	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	9/27/1992	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	9/30/1998	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	9/11/2000	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	9/23/2000	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	9/13/2001	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	9/19/2010	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	9/23/2010	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/1/2011	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	9/2/2015	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	10/10/1991	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	10/12/1991	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	10/28/1996	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	10/2/1997	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	10/9/1998	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	10/17/1999	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	10/29/1999	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	10/10/2000	2	0.94	1.87	3823	79.8955%	Fecal_coliform	40	cfu/100mL	200	283.2	1831.310718	9156.553589
5573540	10/3/2001	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	10/27/2002	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	10/6/2012	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	10/19/2012	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	10/1/2013	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	10/5/2015	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	10/6/2015	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	10/26/2015	2	0.94	1.87	3823	79.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9156.553589
5573540	7/13/1995	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	7/23/2011	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	8/2/1994	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	8/20/2005	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	8/30/2005	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	8/28/2008	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	8/9/2011	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	8/12/2011	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	8/31/2013	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	9/11/1990	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	9/16/1990	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	9/23/1990	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	9/8/1996	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	9/26/1997	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/9/2007	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	9/25/2007	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	9/17/2011	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	9/1/2013	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	9/2/2013	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	10/11/1991	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	10/14/1991	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	10/7/1996	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	10/16/1998	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	10/14/2002	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	10/15/2002	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	10/2/2007	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	10/22/2007	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	10/14/2010	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	10/16/2010	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	10/17/2010	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	10/28/2010	1.9	0.94	1.78	3859	80.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8698.72591
5573540	7/2/1991	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	7/29/2005	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	8/18/1995	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	8/17/2007	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	8/19/2007	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	8/27/2008	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	8/2/2011	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	8/6/2011	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	8/7/2011	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	8/8/2011	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	8/11/2011	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	9/18/1992	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	9/19/1992	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	9/13/2000	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	9/21/2000	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/30/2005	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	9/28/2007	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	9/25/2010	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	9/3/2013	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	9/16/2013	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	9/3/2015	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	10/13/1991	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	10/11/1999	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	10/18/1999	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	10/22/1999	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	10/28/1999	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	10/4/2001	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	10/16/2002	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	10/17/2002	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	10/19/2007	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	10/29/2015	1.8	0.94	1.68	3890	81.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8240.89823
5573540	6/18/2012	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	7/28/2005	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	7/30/2005	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	7/7/2012	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	8/14/2002	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	8/17/2005	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	8/18/2007	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	8/21/2007	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	8/25/2008	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	8/6/2012	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	9/15/2000	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	9/16/2000	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	9/17/2000	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	9/19/2000	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	9/23/2001	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	9/6/2002	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/18/2002	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	9/6/2005	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	9/6/2007	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	9/11/2007	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	9/27/2007	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	9/29/2007	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	9/30/2007	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	9/2/2011	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	9/16/2011	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	9/4/2013	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	9/5/2013	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	9/23/2013	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	10/1/1997	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	10/10/1998	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	10/19/1999	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	20	cfu/100mL	200	283.2	778.3070551	7783.070551
5573540	10/23/1999	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	10/27/2007	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	10/3/2010	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	10/29/2010	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	10/31/2010	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	10/24/2015	1.7	0.94	1.59	3921	81.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7783.070551
5573540	6/19/2012	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	7/3/1991	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	7/17/2002	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	8/27/1994	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	8/13/2002	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	8/16/2005	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	8/21/2005	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	8/29/2005	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	8/29/2008	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	8/3/2011	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	9/24/1994	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/18/2000	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	9/8/2005	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	9/27/2010	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	9/6/2011	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	9/6/2013	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	9/15/2013	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	9/17/2013	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	9/19/2013	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	9/24/2013	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	9/25/2013	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	9/26/2013	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	9/9/2015	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	9/12/2015	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	10/1/1990	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	10/16/1999	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	10/20/1999	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	10/21/1999	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	10/24/1999	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	10/21/2000	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	10/12/2002	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	10/14/2007	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	10/10/2010	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	10/14/2011	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	10/2/2013	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	10/25/2015	1.6	0.94	1.50	3958	82.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7325.242871
5573540	5/2/2001	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	5/6/2001	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	6/27/1991	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	6/20/2012	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	7/7/1991	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	7/18/1991	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	7/31/2005	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/23/1998	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	8/15/2002	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	8/25/2005	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	8/26/2005	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	8/31/2005	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	8/11/2007	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	8/12/2007	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	8/15/2007	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	8/23/2007	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	8/24/2007	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	8/30/2008	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	8/31/2008	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	8/25/2011	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	9/24/1990	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	9/5/1991	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	9/1/1994	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	9/30/1995	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	9/27/1997	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	9/29/1998	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	9/10/2007	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	9/1/2008	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	9/8/2010	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	9/21/2010	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	9/25/2011	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	9/18/2013	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	9/22/2013	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	9/28/2013	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	9/30/2013	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	10/26/1992	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	10/8/1994	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	10/11/1998	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	10/15/1998	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/25/1999	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	10/26/1999	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	10/27/1999	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	10/14/2000	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	10/13/2002	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	10/28/2005	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	10/3/2006	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	10/9/2007	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	10/4/2010	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	10/9/2010	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	10/30/2010	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	10/7/2015	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	10/19/2015	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	10/22/2015	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	10/30/2015	1.5	0.94	1.40	3994	83.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6867.415192
5573540	5/3/2001	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	5/5/2001	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	7/6/1991	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	7/29/1995	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	8/4/1994	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	8/7/2007	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	8/14/2007	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	8/22/2007	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	9/9/1995	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	9/22/1995	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	9/30/1997	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	9/24/2001	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	9/25/2001	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	9/30/2001	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	9/24/2007	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	9/2/2008	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	9/24/2010	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/30/2010	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	9/29/2013	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	9/13/2015	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	9/15/2015	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	9/17/2015	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	9/18/2015	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	10/2/1990	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	10/12/1998	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	10/24/2000	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	10/1/2001	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	10/11/2002	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	10/21/2002	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	10/6/2007	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	10/10/2007	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	10/1/2010	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	10/17/2015	1.4	0.94	1.31	4048	84.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6409.587512
5573540	5/22/1993	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	5/4/2001	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	8/26/1996	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	8/23/2005	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	8/24/2005	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	8/13/2007	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	8/25/2007	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	9/17/1990	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	9/25/1990	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	9/8/1995	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	9/26/2001	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	9/1/2005	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	9/5/2005	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	9/9/2010	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	9/12/2010	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	9/20/2010	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/7/2011	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	9/27/2013	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	9/4/2015	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	9/6/2015	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	9/10/2015	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	9/16/2015	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	10/13/1998	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	10/14/1998	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	10/15/1999	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	10/5/2007	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	10/11/2007	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	10/20/2007	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	10/5/2010	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	10/8/2010	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	10/27/2012	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	10/5/2013	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	10/13/2015	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	10/14/2015	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	10/21/2015	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	10/23/2015	1.3	0.94	1.22	4081	85.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5951.759833
5573540	6/11/2007	56	0.94	1.20	4117	86.0397%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5866.5266
5573540	8/24/2009	56	0.94	1.20	4117	86.0397%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5866.5266
5573540	5/23/1993	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	6/28/1991	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	7/4/1991	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	7/19/1991	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	8/18/1996	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	8/27/2005	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	8/8/2007	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	8/10/2007	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	9/26/1990	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	9/27/1990	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/28/1990	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	9/29/1990	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	9/30/1990	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	9/21/1995	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	9/9/1996	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	9/25/1996	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	9/28/1997	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	9/27/2001	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	9/8/2002	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	9/21/2007	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	9/16/2010	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	9/28/2010	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	9/29/2010	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	9/9/2012	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	10/13/1999	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	10/14/1999	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	10/3/2005	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	10/24/2005	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	10/30/2005	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	10/4/2006	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	10/4/2007	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	10/7/2007	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	10/8/2007	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	10/7/2010	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	10/10/2015	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	10/11/2015	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	10/16/2015	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	10/20/2015	1.2	0.94	1.12	4119	86.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5493.932153
5573540	7/1/1991	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	7/8/1991	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	7/23/1995	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	8/12/1990	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/12/1991	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	8/5/1994	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	8/9/2007	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	8/20/2011	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	9/10/1991	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	9/29/1995	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	9/29/1997	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	9/13/2005	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	9/17/2005	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	9/5/2007	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	9/12/2007	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	9/15/2007	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	9/23/2007	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	9/10/2010	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	9/13/2010	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	9/17/2010	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	9/24/2011	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	9/17/2012	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	9/7/2015	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	9/14/2015	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	10/6/1996	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	10/2/2001	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	10/10/2002	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	10/9/2005	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	10/24/2007	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	10/6/2010	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	10/21/2011	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	10/6/2013	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	10/9/2015	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	10/12/2015	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	10/15/2015	1.1	0.94	1.03	4157	86.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5036.104474
5573540	5/16/2001	1	0.94	0.94	4192	87.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578.276795

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/5/1991	1	0.94	0.94	4192	87.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578.276795
5573540	7/23/1994	1	0.94	0.94	4192	87.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578.276795
5573540	9/24/1996	1	0.94	0.94	4192	87.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578.276795
5573540	9/9/2002	1	0.94	0.94	4192	87.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578.276795
5573540	9/2/2005	1	0.94	0.94	4192	87.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578.276795
5573540	9/18/2005	1	0.94	0.94	4192	87.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578.276795
5573540	9/16/2007	1	0.94	0.94	4192	87.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578.276795
5573540	9/17/2007	1	0.94	0.94	4192	87.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578.276795
5573540	9/18/2007	1	0.94	0.94	4192	87.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578.276795
5573540	9/20/2007	1	0.94	0.94	4192	87.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578.276795
5573540	9/22/2007	1	0.94	0.94	4192	87.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578.276795
5573540	9/14/2010	1	0.94	0.94	4192	87.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578.276795
5573540	9/21/2011	1	0.94	0.94	4192	87.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578.276795
5573540	9/23/2011	1	0.94	0.94	4192	87.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578.276795
5573540	10/21/2007	1	0.94	0.94	4192	87.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578.276795
5573540	10/16/2012	1	0.94	0.94	4192	87.6071%	Fecal_coliform	2.5	cfu/100mL	200	283.2	57.22845993	4578.276795
5573540	10/20/2012	1	0.94	0.94	4192	87.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578.276795
5573540	10/8/2015	1	0.94	0.94	4192	87.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4578.276795
5573540	7/12/2002	0.99	0.94	0.93	4211	88.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4532.494027
5573540	9/7/2002	0.99	0.94	0.93	4211	88.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4532.494027
5573540	9/8/2011	0.99	0.94	0.93	4211	88.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4532.494027
5573540	10/7/2013	0.99	0.94	0.93	4211	88.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4532.494027
5573540	8/14/2012	0.97	0.94	0.91	4215	88.0878%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4440.928491
5573540	9/2/1991	0.97	0.94	0.91	4215	88.0878%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4440.928491
5573540	8/20/2002	0.96	0.94	0.90	4217	88.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4395.145723
5573540	8/24/2011	0.96	0.94	0.90	4217	88.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4395.145723
5573540	9/18/2010	0.96	0.94	0.90	4217	88.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4395.145723
5573540	6/27/2012	0.95	0.94	0.89	4220	88.1923%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4349.362955
5573540	9/23/1995	0.95	0.94	0.89	4220	88.1923%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4349.362955
5573540	9/15/2010	0.95	0.94	0.89	4220	88.1923%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4349.362955
5573540	10/1/2005	0.95	0.94	0.89	4220	88.1923%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4349.362955
5573540	7/20/1991	0.94	0.94	0.88	4224	88.2759%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4303.580187

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/17/2002	0.94	0.94	0.88	4224	88.2759%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4303.580187
5573540	8/23/2011	0.94	0.94	0.88	4224	88.2759%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4303.580187
5573540	9/13/2007	0.94	0.94	0.88	4224	88.2759%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4303.580187
5573540	10/28/2007	0.94	0.94	0.88	4224	88.2759%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4303.580187
5573540	10/19/2013	0.94	0.94	0.88	4224	88.2759%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4303.580187
5573540	6/21/2012	0.93	0.94	0.87	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4257.797419
5573540	6/25/2012	0.93	0.94	0.87	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4257.797419
5573540	8/26/2007	0.93	0.94	0.87	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4257.797419
5573540	9/19/2007	0.93	0.94	0.87	4230	88.4013%	Fecal_coliform	54	cfu/100mL	200	283.2	1149.605303	4257.797419
5573540	10/8/2011	0.93	0.94	0.87	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4257.797419
5573540	8/21/2002	0.92	0.94	0.86	4235	88.5057%	Fecal_coliform	320	cfu/100mL	200	283.2	6739.223442	4212.014651
5573540	8/13/2012	0.92	0.94	0.86	4235	88.5057%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4212.014651
5573540	9/10/1995	0.92	0.94	0.86	4235	88.5057%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4212.014651
5573540	9/28/1998	0.92	0.94	0.86	4235	88.5057%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4212.014651
5573540	10/12/1999	0.92	0.94	0.86	4235	88.5057%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4212.014651
5573540	10/10/2005	0.92	0.94	0.86	4235	88.5057%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4212.014651
5573540	6/29/1991	0.91	0.94	0.85	4241	88.6311%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4166.231883
5573540	9/12/2005	0.91	0.94	0.85	4241	88.6311%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4166.231883
5573540	7/9/1991	0.9	0.94	0.84	4243	88.6729%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4120.449115
5573540	7/14/1995	0.9	0.94	0.84	4243	88.6729%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4120.449115
5573540	8/27/1995	0.9	0.94	0.84	4243	88.6729%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4120.449115
5573540	8/25/1998	0.9	0.94	0.84	4243	88.6729%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4120.449115
5573540	8/12/2002	0.9	0.94	0.84	4243	88.6729%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4120.449115
5573540	10/25/1992	0.9	0.94	0.84	4243	88.6729%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4120.449115
5573540	6/28/2012	0.89	0.94	0.83	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4074.666347
5573540	9/27/2012	0.89	0.94	0.83	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4074.666347
5573540	10/22/2002	0.89	0.94	0.83	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4074.666347
5573540	10/19/2005	0.89	0.94	0.83	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4074.666347
5573540	8/27/1991	0.87	0.94	0.81	4253	88.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3983.100811
5573540	8/28/1993	0.87	0.94	0.81	4253	88.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3983.100811
5573540	8/19/1995	0.87	0.94	0.81	4253	88.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3983.100811
5573540	9/4/2005	0.87	0.94	0.81	4253	88.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3983.100811

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/3/2012	0.87	0.94	0.81	4253	88.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3983.100811
5573540	7/10/1991	0.86	0.94	0.80	4258	88.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3937.318043
5573540	9/14/2007	0.86	0.94	0.80	4258	88.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3937.318043
5573540	8/21/2011	0.85	0.94	0.80	4260	89.0282%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3891.535275
5573540	10/7/2011	0.85	0.94	0.80	4260	89.0282%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3891.535275
5573540	10/15/2013	0.85	0.94	0.80	4260	89.0282%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3891.535275
5573540	6/26/2012	0.84	0.94	0.79	4263	89.0909%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3845.752507
5573540	10/12/2013	0.84	0.94	0.79	4263	89.0909%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3845.752507
5573540	8/14/1994	0.83	0.94	0.78	4265	89.1327%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3799.96974
5573540	8/27/2007	0.83	0.94	0.78	4265	89.1327%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3799.96974
5573540	9/3/2012	0.83	0.94	0.78	4265	89.1327%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3799.96974
5573540	5/7/2001	0.82	0.94	0.77	4268	89.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3754.186972
5573540	6/30/1991	0.81	0.94	0.76	4269	89.2163%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3708.404204
5573540	8/28/2005	0.81	0.94	0.76	4269	89.2163%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3708.404204
5573540	10/30/2007	0.81	0.94	0.76	4269	89.2163%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3708.404204
5573540	10/13/2013	0.81	0.94	0.76	4269	89.2163%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3708.404204
5573540	6/22/2012	0.8	0.94	0.75	4273	89.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3662.621436
5573540	9/20/1995	0.8	0.94	0.75	4273	89.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3662.621436
5573540	7/21/1991	0.79	0.94	0.74	4275	89.3417%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3616.838668
5573540	8/28/1991	0.79	0.94	0.74	4275	89.3417%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3616.838668
5573540	9/4/2007	0.79	0.94	0.74	4275	89.3417%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3616.838668
5573540	10/9/2002	0.79	0.94	0.74	4275	89.3417%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3616.838668
5573540	10/29/2007	0.79	0.94	0.74	4275	89.3417%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3616.838668
5573540	6/24/2012	0.78	0.94	0.73	4280	89.4462%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3571.0559
5573540	8/28/2007	0.78	0.94	0.73	4280	89.4462%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3571.0559
5573540	9/21/2005	0.78	0.94	0.73	4280	89.4462%	Fecal_coliform	544	cfu/100mL	200	283.2	9713.272047	3571.0559
5573540	7/22/1991	0.77	0.94	0.72	4283	89.5089%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3525.273132
5573540	7/3/2012	0.77	0.94	0.72	4283	89.5089%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3525.273132
5573540	7/9/2012	0.77	0.94	0.72	4283	89.5089%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3525.273132
5573540	10/11/2013	0.77	0.94	0.72	4283	89.5089%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3525.273132
5573540	7/18/2002	0.76	0.94	0.71	4287	89.5925%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3479.490364
5573540	8/12/1994	0.76	0.94	0.71	4287	89.5925%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3479.490364

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/8/2002	0.76	0.94	0.71	4287	89.5925%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3479.490364
5573540	10/4/2005	0.76	0.94	0.71	4287	89.5925%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3479.490364
5573540	9/22/2011	0.75	0.94	0.70	4291	89.6761%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3433.707596
5573540	10/22/1992	0.75	0.94	0.70	4291	89.6761%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3433.707596
5573540	10/6/2011	0.75	0.94	0.70	4291	89.6761%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3433.707596
5573540	10/31/2011	0.75	0.94	0.70	4291	89.6761%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3433.707596
5573540	7/23/1991	0.74	0.94	0.69	4295	89.7597%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3387.924828
5573540	9/24/1995	0.74	0.94	0.69	4295	89.7597%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3387.924828
5573540	10/28/2012	0.74	0.94	0.69	4295	89.7597%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3387.924828
5573540	10/15/2011	0.72	0.94	0.67	4298	89.8224%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3296.359292
5573540	10/14/2013	0.72	0.94	0.67	4298	89.8224%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3296.359292
5573540	10/16/2013	0.72	0.94	0.67	4298	89.8224%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3296.359292
5573540	5/17/2001	0.71	0.94	0.66	4301	89.8851%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3250.576524
5573540	9/6/1991	0.71	0.94	0.66	4301	89.8851%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3250.576524
5573540	9/28/1995	0.71	0.94	0.66	4301	89.8851%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3250.576524
5573540	10/31/2007	0.71	0.94	0.66	4301	89.8851%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3250.576524
5573540	10/9/2011	0.71	0.94	0.66	4301	89.8851%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3250.576524
5573540	10/9/2013	0.71	0.94	0.66	4301	89.8851%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3250.576524
5573540	8/2/1996	0.7	0.94	0.65	4307	90.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3204.793756
5573540	8/29/2007	0.69	0.94	0.65	4308	90.0313%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3159.010988
5573540	10/5/2011	0.69	0.94	0.65	4308	90.0313%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3159.010988
5573540	10/8/2013	0.69	0.94	0.65	4308	90.0313%	Fecal_coliform	120	cfu/100mL	200	283.2	1895.406593	3159.010988
5573540	9/3/2005	0.68	0.94	0.64	4311	90.0940%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3113.22822
5573540	10/2/1991	0.68	0.94	0.64	4311	90.0940%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3113.22822
5573540	8/11/1990	0.67	0.94	0.63	4313	90.1358%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3067.445452
5573540	8/27/1996	0.67	0.94	0.63	4313	90.1358%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3067.445452
5573540	8/22/2011	0.67	0.94	0.63	4313	90.1358%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3067.445452
5573540	9/2/2007	0.67	0.94	0.63	4313	90.1358%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3067.445452
5573540	10/25/2007	0.67	0.94	0.63	4313	90.1358%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3067.445452
5573540	8/20/1994	0.65	0.94	0.61	4318	90.2403%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2975.879916
5573540	8/27/2012	0.65	0.94	0.61	4318	90.2403%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2975.879916
5573540	10/10/2013	0.64	0.94	0.60	4320	90.2821%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2930.097149

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/16/2012	0.63	0.94	0.59	4321	90.3030%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2884.314381
5573540	9/25/1995	0.63	0.94	0.59	4321	90.3030%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2884.314381
5573540	9/29/1996	0.63	0.94	0.59	4321	90.3030%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2884.314381
5573540	9/1/2007	0.63	0.94	0.59	4321	90.3030%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2884.314381
5573540	9/3/2007	0.63	0.94	0.59	4321	90.3030%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2884.314381
5573540	9/9/2005	0.62	0.94	0.58	4326	90.4075%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2838.531613
5573540	10/31/2012	0.62	0.94	0.58	4326	90.4075%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2838.531613
5573540	6/23/2012	0.61	0.94	0.57	4328	90.4493%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2792.748845
5573540	7/1/2012	0.6	0.94	0.56	4329	90.4702%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2746.966077
5573540	8/18/2012	0.6	0.94	0.56	4329	90.4702%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2746.966077
5573540	9/11/2005	0.6	0.94	0.56	4329	90.4702%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2746.966077
5573540	10/29/2013	0.6	0.94	0.56	4329	90.4702%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2746.966077
5573540	9/10/2005	0.59	0.94	0.55	4333	90.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2701.183309
5573540	10/7/2002	0.59	0.94	0.55	4333	90.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2701.183309
5573540	7/23/2002	0.58	0.94	0.54	4335	90.5956%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2655.400541
5573540	9/6/2012	0.58	0.94	0.54	4335	90.5956%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2655.400541
5573540	9/23/2012	0.58	0.94	0.54	4335	90.5956%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2655.400541
5573540	10/2/2005	0.58	0.94	0.54	4335	90.5956%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2655.400541
5573540	10/21/2012	0.58	0.94	0.54	4335	90.5956%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2655.400541
5573540	10/22/2011	0.57	0.94	0.53	4340	90.7001%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2609.617773
5573540	7/24/1991	0.56	0.94	0.52	4341	90.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2563.835005
5573540	8/13/1991	0.56	0.94	0.52	4341	90.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2563.835005
5573540	8/7/2012	0.56	0.94	0.52	4341	90.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2563.835005
5573540	9/11/1991	0.56	0.94	0.52	4341	90.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2563.835005
5573540	10/11/2011	0.56	0.94	0.52	4341	90.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2563.835005
5573540	10/4/2012	0.56	0.94	0.52	4341	90.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2563.835005
5573540	10/17/2013	0.56	0.94	0.52	4341	90.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2563.835005
5573540	10/6/2005	0.55	0.94	0.51	4348	90.8673%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2518.052237
5573540	10/11/2005	0.55	0.94	0.51	4348	90.8673%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2518.052237
5573540	7/26/2002	0.54	0.94	0.51	4350	90.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2472.269469
5573540	9/27/1998	0.54	0.94	0.51	4350	90.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2472.269469
5573540	9/19/2012	0.54	0.94	0.51	4350	90.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2472.269469

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/4/2012	0.53	0.94	0.50	4353	90.9718%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2426.486701
5573540	8/30/2007	0.53	0.94	0.50	4353	90.9718%	Fecal_coliform	160	cfu/100mL	200	283.2	1941.189361	2426.486701
5573540	10/28/2013	0.53	0.94	0.50	4353	90.9718%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2426.486701
5573540	8/3/1994	0.52	0.94	0.49	4356	91.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2380.703933
5573540	8/31/1998	0.52	0.94	0.49	4356	91.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2380.703933
5573540	8/31/2007	0.52	0.94	0.49	4356	91.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2380.703933
5573540	6/29/2012	0.51	0.94	0.48	4359	91.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2334.921165
5573540	7/2/2012	0.51	0.94	0.48	4359	91.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2334.921165
5573540	10/5/1996	0.51	0.94	0.48	4359	91.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2334.921165
5573540	10/7/2012	0.51	0.94	0.48	4359	91.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2334.921165
5573540	10/29/2012	0.51	0.94	0.48	4359	91.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2334.921165
5573540	10/18/2013	0.51	0.94	0.48	4359	91.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2334.921165
5573540	8/17/1991	0.5	0.94	0.47	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2289.138397
5573540	8/26/1994	0.5	0.94	0.47	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2289.138397
5573540	9/27/1995	0.5	0.94	0.47	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2289.138397
5573540	10/10/2011	0.5	0.94	0.47	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2289.138397
5573540	10/16/2011	0.5	0.94	0.47	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2289.138397
5573540	5/2/2003	0.49	0.94	0.46	4370	91.3271%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2243.355629
5573540	10/4/2011	0.49	0.94	0.46	4370	91.3271%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2243.355629
5573540	10/30/2012	0.49	0.94	0.46	4370	91.3271%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2243.355629
5573540	9/10/2012	0.48	0.94	0.45	4373	91.3898%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2197.572861
5573540	10/5/2005	0.48	0.94	0.45	4373	91.3898%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2197.572861
5573540	10/27/2013	0.48	0.94	0.45	4373	91.3898%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2197.572861
5573540	7/19/2002	0.47	0.94	0.44	4376	91.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2151.790093
5573540	9/30/2011	0.47	0.94	0.44	4376	91.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2151.790093
5573540	8/11/2002	0.46	0.94	0.43	4378	91.4943%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2106.007326
5573540	9/20/1991	0.46	0.94	0.43	4378	91.4943%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2106.007326
5573540	8/26/1998	0.45	0.94	0.42	4380	91.5361%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2060.224558
5573540	8/19/1991	0.42	0.94	0.39	4381	91.5569%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1922.876254
5573540	9/19/1995	0.42	0.94	0.39	4381	91.5569%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1922.876254
5573540	5/8/2001	0.41	0.94	0.38	4383	91.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1877.093486
5573540	9/23/1996	0.41	0.94	0.38	4383	91.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1877.093486

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/1/2011	0.41	0.94	0.38	4383	91.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1877.093486
5573540	10/23/2011	0.41	0.94	0.38	4383	91.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1877.093486
5573540	7/25/1991	0.4	0.94	0.37	4387	91.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1831.310718
5573540	7/5/2012	0.4	0.94	0.37	4387	91.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1831.310718
5573540	7/6/2012	0.4	0.94	0.37	4387	91.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1831.310718
5573540	10/30/2000	0.4	0.94	0.37	4387	91.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1831.310718
5573540	10/2/2011	0.4	0.94	0.37	4387	91.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1831.310718
5573540	9/7/1991	0.39	0.94	0.36	4392	91.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1785.52795
5573540	10/25/2005	0.39	0.94	0.36	4392	91.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1785.52795
5573540	8/15/2012	0.38	0.94	0.36	4394	91.8286%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1739.745182
5573540	10/6/2002	0.38	0.94	0.36	4394	91.8286%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1739.745182
5573540	7/13/2002	0.37	0.94	0.35	4396	91.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1693.962414
5573540	8/14/1991	0.37	0.94	0.35	4396	91.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1693.962414
5573540	9/7/1995	0.37	0.94	0.35	4396	91.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1693.962414
5573540	10/8/2012	0.37	0.94	0.35	4396	91.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1693.962414
5573540	9/17/1995	0.36	0.94	0.34	4400	91.9540%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1648.179646
5573540	7/24/2002	0.35	0.94	0.33	4401	91.9749%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1602.396878
5573540	8/31/2012	0.35	0.94	0.33	4401	91.9749%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1602.396878
5573540	9/25/1994	0.35	0.94	0.33	4401	91.9749%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1602.396878
5573540	9/26/1994	0.35	0.94	0.33	4401	91.9749%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1602.396878
5573540	9/26/1998	0.35	0.94	0.33	4401	91.9749%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1602.396878
5573540	10/3/2002	0.35	0.94	0.33	4401	91.9749%	Fecal_coliform	70	cfu/100mL	200	283.2	560.8389073	1602.396878
5573540	10/26/2005	0.35	0.94	0.33	4401	91.9749%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1602.396878
5573540	10/3/2011	0.35	0.94	0.33	4401	91.9749%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1602.396878
5573540	10/9/2012	0.35	0.94	0.33	4401	91.9749%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1602.396878
5573540	7/28/2002	0.34	0.94	0.32	4410	92.1630%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1556.61411
5573540	8/2/1991	0.34	0.94	0.32	4410	92.1630%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1556.61411
5573540	8/20/1991	0.34	0.94	0.32	4410	92.1630%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1556.61411
5573540	9/8/1994	0.34	0.94	0.32	4410	92.1630%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1556.61411
5573540	10/23/1992	0.34	0.94	0.32	4410	92.1630%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1556.61411
5573540	10/20/2013	0.34	0.94	0.32	4410	92.1630%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1556.61411
5573540	6/30/2012	0.33	0.94	0.31	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1510.831342

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/26/1991	0.33	0.94	0.31	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1510.831342
5573540	7/29/1991	0.33	0.94	0.31	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1510.831342
5573540	8/16/1991	0.33	0.94	0.31	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1510.831342
5573540	8/20/1995	0.33	0.94	0.31	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1510.831342
5573540	8/8/2012	0.33	0.94	0.31	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1510.831342
5573540	8/26/2012	0.33	0.94	0.31	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1510.831342
5573540	9/26/1995	0.33	0.94	0.31	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1510.831342
5573540	10/24/2011	0.33	0.94	0.31	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1510.831342
5573540	10/29/2011	0.33	0.94	0.31	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1510.831342
5573540	10/26/2013	0.33	0.94	0.31	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1510.831342
5573540	7/27/1991	0.32	0.94	0.30	4427	92.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1465.048574
5573540	7/10/2012	0.32	0.94	0.30	4427	92.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1465.048574
5573540	8/3/1991	0.32	0.94	0.30	4427	92.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1465.048574
5573540	8/15/1991	0.32	0.94	0.30	4427	92.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1465.048574
5573540	8/28/1995	0.32	0.94	0.30	4427	92.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1465.048574
5573540	9/18/1995	0.32	0.94	0.30	4427	92.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1465.048574
5573540	10/30/2011	0.32	0.94	0.30	4427	92.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1465.048574
5573540	10/10/2012	0.32	0.94	0.30	4427	92.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1465.048574
5573540	10/10/1994	0.31	0.94	0.29	4435	92.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1419.265806
5573540	7/24/1994	0.3	0.94	0.28	4436	92.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1373.483038
5573540	7/17/2012	0.3	0.94	0.28	4436	92.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1373.483038
5573540	8/28/1994	0.3	0.94	0.28	4436	92.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1373.483038
5573540	9/28/2012	0.3	0.94	0.28	4436	92.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1373.483038
5573540	10/28/2011	0.3	0.94	0.28	4436	92.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1373.483038
5573540	10/23/2013	0.3	0.94	0.28	4436	92.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1373.483038
5573540	7/25/2002	0.29	0.94	0.27	4442	92.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1327.70027
5573540	9/12/1991	0.29	0.94	0.27	4442	92.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1327.70027
5573540	7/28/1991	0.28	0.94	0.26	4444	92.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1281.917502
5573540	8/1/1991	0.28	0.94	0.26	4444	92.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1281.917502
5573540	8/18/1991	0.28	0.94	0.26	4444	92.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1281.917502
5573540	8/21/1991	0.28	0.94	0.26	4444	92.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1281.917502
5573540	9/14/2012	0.28	0.94	0.26	4444	92.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1281.917502

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/25/2011	0.28	0.94	0.26	4444	92.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1281.917502
5573540	10/24/2013	0.28	0.94	0.26	4444	92.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1281.917502
5573540	10/25/2013	0.28	0.94	0.26	4444	92.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1281.917502
5573540	8/10/2009	55	0.94	0.26	4452	93.0408%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1266.45236
5573540	9/2/1990	55	0.94	0.26	4452	93.0408%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1266.45236
5573540	9/11/2003	55	0.94	0.26	4452	93.0408%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1266.45236
5573540	10/16/2001	55	0.94	0.26	4452	93.0408%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1266.45236
5573540	10/29/2001	55	0.94	0.26	4452	93.0408%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1266.45236
5573540	10/19/2004	55	0.94	0.26	4452	93.0408%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1266.45236
5573540	9/20/2002	0.27	0.94	0.25	4458	93.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1236.134735
5573540	9/20/2012	0.27	0.94	0.25	4458	93.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1236.134735
5573540	9/24/2012	0.27	0.94	0.25	4458	93.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1236.134735
5573540	10/11/2012	0.27	0.94	0.25	4458	93.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1236.134735
5573540	10/30/1994	0.26	0.94	0.24	4462	93.2497%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1190.351967
5573540	8/23/1991	0.25	0.94	0.23	4463	93.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1144.569199
5573540	9/10/2002	0.25	0.94	0.23	4463	93.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1144.569199
5573540	10/27/2011	0.25	0.94	0.23	4463	93.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1144.569199
5573540	10/21/2013	0.25	0.94	0.23	4463	93.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1144.569199
5573540	10/22/2013	0.25	0.94	0.23	4463	93.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1144.569199
5573540	7/30/1991	0.24	0.94	0.22	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1098.786431
5573540	7/31/1991	0.24	0.94	0.22	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1098.786431
5573540	8/22/1991	0.24	0.94	0.22	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1098.786431
5573540	9/2/1994	0.24	0.94	0.22	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1098.786431
5573540	9/27/1994	0.24	0.94	0.22	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1098.786431
5573540	9/11/2012	0.24	0.94	0.22	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1098.786431
5573540	10/27/2005	0.24	0.94	0.22	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1098.786431
5573540	8/4/1991	0.23	0.94	0.22	4475	93.5214%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1053.003663
5573540	9/22/1991	0.23	0.94	0.22	4475	93.5214%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1053.003663
5573540	9/15/2012	0.23	0.94	0.22	4475	93.5214%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1053.003663
5573540	7/15/2002	0.22	0.94	0.21	4478	93.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1007.220895
5573540	10/29/1994	0.22	0.94	0.21	4478	93.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1007.220895
5573540	7/20/2002	0.21	0.94	0.20	4480	93.6259%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	961.4381269

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/19/2012	0.21	0.94	0.20	4480	93.6259%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	961.4381269
5573540	9/25/1998	0.21	0.94	0.20	4480	93.6259%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	961.4381269
5573540	9/22/2005	0.21	0.94	0.20	4480	93.6259%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	961.4381269
5573540	7/25/1994	0.2	0.94	0.19	4484	93.7095%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	915.6553589
5573540	7/18/2012	0.2	0.94	0.19	4484	93.7095%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	915.6553589
5573540	8/24/1991	0.2	0.94	0.19	4484	93.7095%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	915.6553589
5573540	8/9/2012	0.2	0.94	0.19	4484	93.7095%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	915.6553589
5573540	7/29/2002	0.19	0.94	0.18	4488	93.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	869.872591
5573540	8/3/2002	0.19	0.94	0.18	4488	93.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	869.872591
5573540	10/26/2011	0.19	0.94	0.18	4488	93.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	869.872591
5573540	10/12/2012	0.19	0.94	0.18	4488	93.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	869.872591
5573540	8/4/2002	0.18	0.94	0.17	4492	93.8767%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	824.089823
5573540	9/28/1991	0.17	0.94	0.16	4493	93.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	778.3070551
5573540	9/15/2002	0.17	0.94	0.16	4493	93.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	778.3070551
5573540	9/16/2012	0.17	0.94	0.16	4493	93.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	778.3070551
5573540	7/19/2012	0.16	0.94	0.15	4496	93.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	732.5242871
5573540	8/6/1994	0.16	0.94	0.15	4496	93.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	732.5242871
5573540	9/4/2012	0.16	0.94	0.15	4496	93.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	732.5242871
5573540	9/12/2012	0.16	0.94	0.15	4496	93.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	732.5242871
5573540	9/29/2012	0.16	0.94	0.15	4496	93.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	732.5242871
5573540	7/11/2012	0.15	0.94	0.14	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	686.7415192
5573540	7/13/2012	0.15	0.94	0.14	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	686.7415192
5573540	8/21/1994	0.15	0.94	0.14	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	686.7415192
5573540	9/13/1991	0.15	0.94	0.14	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	686.7415192
5573540	9/28/1994	0.15	0.94	0.14	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	686.7415192
5573540	9/29/1994	0.15	0.94	0.14	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	686.7415192
5573540	7/12/2012	0.14	0.94	0.13	4507	94.1902%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	640.9587512
5573540	7/20/2012	0.14	0.94	0.13	4507	94.1902%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	640.9587512
5573540	9/11/1995	0.14	0.94	0.13	4507	94.1902%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	640.9587512
5573540	9/13/2012	0.14	0.94	0.13	4507	94.1902%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	640.9587512
5573540	8/28/2012	0.13	0.94	0.12	4511	94.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	595.1759833
5573540	9/8/1991	0.13	0.94	0.12	4511	94.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	595.1759833

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/21/2012	0.12	0.94	0.11	4513	94.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	549.3932153
5573540	8/15/1994	0.12	0.94	0.11	4513	94.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	549.3932153
5573540	9/6/1995	0.12	0.94	0.11	4513	94.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	549.3932153
5573540	9/30/2012	0.12	0.94	0.11	4513	94.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	549.3932153
5573540	7/31/2002	0.11	0.94	0.10	4517	94.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	503.6104474
5573540	8/10/2012	0.11	0.94	0.10	4517	94.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	503.6104474
5573540	8/20/2012	0.11	0.94	0.10	4517	94.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	503.6104474
5573540	9/30/1991	0.11	0.94	0.10	4517	94.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	503.6104474
5573540	10/29/2000	0.11	0.94	0.10	4517	94.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	503.6104474
5573540	5/1/2003	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	7/26/1994	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	7/14/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	7/21/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	7/30/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	7/3/2003	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	7/4/2003	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	7/5/2003	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	7/6/2003	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	7/7/2003	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	8/5/1991	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	8/17/1993	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	8/1/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	8/2/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	8/5/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	8/6/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	8/7/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	8/8/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	8/9/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	8/10/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	9/30/1994	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	9/11/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	9/12/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/13/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	9/14/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	9/16/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	9/21/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	9/22/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	9/23/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	9/24/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	9/25/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	9/26/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	9/27/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	9/28/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	9/29/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	9/30/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	10/28/1994	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	10/22/2000	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	10/25/2000	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	10/26/2000	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	10/27/2000	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	10/28/2000	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	10/31/2000	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	10/1/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	10/2/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	10/5/2002	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	10/12/2005	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	10/13/2005	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	10/14/2005	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	10/15/2005	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	10/16/2005	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	10/17/2005	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	10/18/2005	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	10/1/2012	0.1	0.94	0.09	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	457.8276795
5573540	7/22/2012	0.09	0.94	0.08	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	412.0449115

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/31/2012	0.09	0.94	0.08	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	412.0449115
5573540	8/25/1991	0.09	0.94	0.08	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	412.0449115
5573540	8/1/2012	0.09	0.94	0.08	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	412.0449115
5573540	8/3/2012	0.09	0.94	0.08	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	412.0449115
5573540	8/4/2012	0.09	0.94	0.08	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	412.0449115
5573540	10/27/1994	0.09	0.94	0.08	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	412.0449115
5573540	7/24/2012	0.08	0.94	0.07	4583	95.7785%	Fecal_coliform	4	cfu/100mL	200	283.2	7.325242871	366.2621436
5573540	8/23/2012	0.08	0.94	0.07	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	366.2621436
5573540	9/16/1995	0.08	0.94	0.07	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	366.2621436
5573540	9/10/1996	0.08	0.94	0.07	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	366.2621436
5573540	10/4/1996	0.08	0.94	0.07	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	366.2621436
5573540	10/2/2012	0.08	0.94	0.07	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	366.2621436
5573540	7/25/2012	0.07	0.94	0.07	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	320.4793756
5573540	7/30/2012	0.07	0.94	0.07	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	320.4793756
5573540	8/26/1991	0.07	0.94	0.07	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	320.4793756
5573540	8/2/2012	0.07	0.94	0.07	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	320.4793756
5573540	9/14/1991	0.07	0.94	0.07	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	320.4793756
5573540	9/5/1995	0.07	0.94	0.07	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	320.4793756
5573540	10/1/1991	0.07	0.94	0.07	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	320.4793756
5573540	10/1/1994	0.07	0.94	0.07	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	320.4793756
5573540	7/23/2012	0.06	0.94	0.06	4597	96.0711%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274.6966077
5573540	7/29/2012	0.06	0.94	0.06	4597	96.0711%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274.6966077
5573540	8/11/2012	0.06	0.94	0.06	4597	96.0711%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274.6966077
5573540	8/12/2012	0.06	0.94	0.06	4597	96.0711%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274.6966077
5573540	10/24/1994	0.06	0.94	0.06	4597	96.0711%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274.6966077
5573540	7/26/2012	0.05	0.94	0.05	4602	96.1755%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	228.9138397
5573540	7/27/2012	0.05	0.94	0.05	4602	96.1755%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	228.9138397
5573540	9/9/1994	0.05	0.94	0.05	4602	96.1755%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	228.9138397
5573540	7/28/2012	0.04	0.94	0.04	4605	96.2382%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	183.1310718
5573540	8/21/2012	0.04	0.94	0.04	4605	96.2382%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	183.1310718
5573540	8/24/2012	0.04	0.94	0.04	4605	96.2382%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	183.1310718
5573540	8/29/1995	0.03	0.94	0.03	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	137.3483038

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/19/1996	0.03	0.94	0.03	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	137.3483038
5573540	8/22/2012	0.03	0.94	0.03	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	137.3483038
5573540	9/25/1991	0.03	0.94	0.03	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	137.3483038
5573540	9/29/1991	0.03	0.94	0.03	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	137.3483038
5573540	10/2/1994	0.03	0.94	0.03	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	137.3483038
5573540	10/19/1994	0.03	0.94	0.03	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	137.3483038
5573540	9/3/1994	0.02	0.94	0.02	4615	96.4472%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	91.56553589
5573540	9/22/1996	0.02	0.94	0.02	4615	96.4472%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	91.56553589
5573540	10/25/1994	0.02	0.94	0.02	4615	96.4472%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	91.56553589
5573540	8/3/1996	0.01	0.94	0.01	4618	96.5099%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45.78276795
5573540	9/9/1991	0.01	0.94	0.01	4618	96.5099%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45.78276795
5573540	9/23/1991	0.01	0.94	0.01	4618	96.5099%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45.78276795
5573540	10/18/1994	0.01	0.94	0.01	4618	96.5099%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45.78276795
5573540	7/27/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/28/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/29/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/30/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/31/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/15/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/16/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/17/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/18/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/19/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/20/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/21/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/22/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/30/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/31/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/7/1993	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/18/1993	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/1/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/7/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/8/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/9/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/10/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/11/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/16/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/17/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/18/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/19/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/22/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/23/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/24/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/25/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/29/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/30/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/31/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/1/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/2/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/3/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/4/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/5/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/6/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/30/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/31/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/4/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/5/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/6/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/7/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/8/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/9/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/10/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/11/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/12/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/13/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/14/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/15/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/16/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/20/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/21/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/22/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/23/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/24/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/25/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/28/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/29/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/30/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/31/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/27/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/25/2012	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/29/2012	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/30/2012	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/15/1991	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/16/1991	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/17/1991	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/18/1991	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/19/1991	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/24/1991	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/26/1991	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/27/1991	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/4/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/10/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/11/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/12/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/13/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/14/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/15/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/16/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/17/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/18/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/19/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/20/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/21/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/22/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/1/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/2/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/3/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/4/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/12/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/13/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/14/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/15/1995	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/1/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/2/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/3/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/4/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/5/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/6/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/7/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/11/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/12/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/13/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/14/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/15/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/16/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/17/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/18/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/19/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/20/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/21/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/30/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/1/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/2/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/3/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/4/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/5/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/6/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/7/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/8/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/9/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/10/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/11/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/12/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/13/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/14/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/15/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/16/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/17/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/18/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/19/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/20/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/21/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/22/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/23/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/24/1998	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/24/1992	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/3/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/4/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/5/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/6/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0

Fecal Coliform Load Duration Curve Calculations
(E-06)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/7/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/11/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/12/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/13/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/14/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/15/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/16/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/17/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/20/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/21/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/22/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/23/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/26/1994	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/1/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/2/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/3/1996	0	0.94	0.00	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0

Middle Sangamon River (E-09)
Fecal Coliform

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/5/2008	19200	1.00	19200	1	0.0209%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	93958963.2
5573540	6/4/2008	16900	1.00	16900	2	0.0418%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82703462.4
5573540	6/7/2008	15300	1.00	15300	3	0.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	74873548.8
5573540	5/12/2002	14100	1.00	14100	4	0.0836%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	69001113.6
5573540	6/6/2008	13300	1.00	13300	5	0.1045%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	65086156.8
5573540	6/8/2008	12700	1.00	12700	6	0.1254%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	62149939.2
5573540	5/17/1990	12100	1.00	12100	7	0.1463%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	59213721.6
5573540	9/15/2008	11900	1.00	11900	8	0.1672%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58234982.4
5573540	5/19/1995	11100	1.00	11100	9	0.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54320025.6
5573540	9/14/2008	11000	1.00	11000	10	0.2090%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830656
5573540	5/16/1990	10100	1.00	10100	11	0.2299%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	49426329.6
5573540	5/13/2002	9900	1.00	9900	12	0.2508%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48447590.4
5573540	6/23/2010	9240	1.00	9240	13	0.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45217751.04
5573540	6/22/2010	9050	1.00	9050	14	0.2926%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	44287948.8
5573540	5/18/1995	9040	1.00	9040	15	0.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	44239011.84
5573540	5/17/2009	8940	1.00	8940	16	0.3344%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	43749642.24
5573540	6/9/2008	8800	1.00	8800	17	0.3553%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	43064524.8
5573540	9/16/2008	8770	1.00	8770	18	0.3762%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42917713.92
5573540	5/20/1995	8420	1.00	8420	19	0.3971%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	41204920.32
5573540	6/3/2008	8330	1.00	8330	20	0.4180%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40764487.68
5573540	9/17/2008	8260	1.00	8260	21	0.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40421928.96
5573540	6/19/1998	8110	1.00	8110	22	0.4598%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39687874.56
5573540	5/9/1996	8060	1.00	8060	23	0.4807%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39443189.76
5573540	5/16/2009	7760	1.00	7760	24	0.5016%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37975080.96
5573540	6/16/1998	7760	1.00	7760	24	0.5016%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37975080.96
5573540	10/31/2009	7700	1.00	7700	26	0.5434%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37681459.2
5573540	9/18/2008	7690	1.00	7690	27	0.5643%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37632522.24
5573540	5/4/1998	7680	1.00	7680	28	0.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37583585.28
5573540	5/18/1990	7670	1.00	7670	29	0.6061%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37534648.32
5573540	7/16/2014	7670	1.00	7670	29	0.6061%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37534648.32
5573540	6/20/1998	7570	1.00	7570	31	0.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37045278.72
5573540	5/14/2009	7510	1.00	7510	32	0.6688%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36751656.96
5573540	5/18/2009	7400	1.00	7400	33	0.6897%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36213350.4
5573540	6/10/2008	7310	1.00	7310	34	0.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35772917.76
5573540	6/21/2010	7190	1.00	7190	35	0.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35185674.24
5573540	5/30/2011	7030	1.00	7030	36	0.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34402682.88
5573540	7/17/2014	7010	1.00	7010	37	0.7732%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34304808.96
5573540	5/14/2002	6800	1.00	6800	38	0.7941%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33277132.8
5573540	5/5/1998	6740	1.00	6740	39	0.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32983511.04
5573540	6/23/1998	6710	1.00	6710	40	0.8359%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32836700.16
5573540	5/8/1996	6620	1.00	6620	41	0.8568%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32396267.52
5573540	5/31/2011	6600	1.00	6600	42	0.8777%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32298393.6
5573540	6/17/1998	6560	1.00	6560	43	0.8986%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32102645.76
5573540	5/17/1995	6250	1.00	6250	44	0.9195%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30585600
5573540	5/29/2011	6230	1.00	6230	45	0.9404%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30487726.08
5573540	7/28/2006	6150	1.00	6150	46	0.9613%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30096230.4

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/21/1995	6130	1.00	6130	47	0.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29998356.48
5573540	6/24/2010	6130	1.00	6130	47	0.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29998356.48
5573540	9/19/2008	6130	1.00	6130	47	0.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29998356.48
5573540	5/14/1996	6120	1.00	6120	50	1.0449%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29949419.52
5573540	5/11/1996	6080	1.00	6080	51	1.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29753671.68
5573540	5/13/1996	6070	1.00	6070	52	1.0867%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29704734.72
5573540	5/19/2009	6060	1.00	6060	53	1.1076%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29655797.76
5573540	6/21/1998	6060	1.00	6060	53	1.1076%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29655797.76
5573540	7/15/2014	6030	1.00	6030	55	1.1494%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29508986.88
5573540	5/16/2002	6020	1.00	6020	56	1.1703%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29460049.92
5573540	6/16/2004	5960	1.00	5960	57	1.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29166428.16
5573540	5/26/2011	5950	1.00	5950	58	1.2121%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29117491.2
5573540	5/15/2002	5940	1.00	5940	59	1.2330%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29068554.24
5573540	6/18/2010	5930	1.00	5930	60	1.2539%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29019617.28
5573540	5/12/1996	5910	1.00	5910	61	1.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28921743.36
5573540	5/9/1998	5900	1.00	5900	62	1.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28872806.4
5573540	6/20/2010	5890	1.00	5890	63	1.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28823869.44
5573540	6/11/2008	5870	1.00	5870	64	1.3375%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28725995.52
5573540	5/27/1996	5800	1.00	5800	65	1.3584%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28383436.8
5573540	5/8/1998	5800	1.00	5800	65	1.3584%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28383436.8
5573540	5/24/1995	5790	1.00	5790	67	1.4002%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28334499.84
5573540	5/25/1995	5780	1.00	5780	68	1.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28285562.88
5573540	5/20/2009	5750	1.00	5750	69	1.4420%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28138752
5573540	6/14/2015	5710	1.00	5710	70	1.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27943004.16
5573540	7/13/2015	5690	1.00	5690	71	1.4838%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27845130.24
5573540	5/29/1995	5660	1.00	5660	72	1.5047%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27698319.36
5573540	6/17/2010	5620	1.00	5620	73	1.5256%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27502571.52
5573540	5/17/2002	5580	1.00	5580	74	1.5465%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27306823.68
5573540	6/28/2013	5570	1.00	5570	75	1.5674%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27257886.72
5573540	7/12/2015	5570	1.00	5570	75	1.5674%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27257886.72
5573540	10/21/1993	5570	1.00	5570	75	1.5674%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27257886.72
5573540	7/26/1992	5560	1.00	5560	78	1.6301%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27208949.76
5573540	10/30/2009	5540	1.00	5540	79	1.6510%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27111075.84
5573540	7/12/2008	5530	1.00	5530	80	1.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27062138.88
5573540	7/18/2014	5500	1.00	5500	81	1.6928%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26915328
5573540	6/29/2013	5490	1.00	5490	82	1.7137%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26866391.04
5573540	5/26/1995	5470	1.00	5470	83	1.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26768517.12
5573540	6/18/1998	5460	1.00	5460	84	1.7555%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26719580.16
5573540	5/28/1995	5450	1.00	5450	85	1.7764%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26670643.2
5573540	6/19/2010	5420	1.00	5420	86	1.7973%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26523832.32
5573540	7/14/2015	5380	1.00	5380	87	1.8182%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26328084.48
5573540	5/28/2011	5240	1.00	5240	88	1.8391%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25642967.04
5573540	5/10/1996	5230	1.00	5230	89	1.8600%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25594030.08
5573540	6/13/2015	5230	1.00	5230	89	1.8600%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25594030.08
5573540	5/30/1995	5190	1.00	5190	91	1.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25398282.24
5573540	5/27/1995	5170	1.00	5170	92	1.9227%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25300408.32

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/16/2010	5060	1.00	5060	93	1.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24762101.76
5573540	5/3/1998	5050	1.00	5050	94	1.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24713164.8
5573540	7/29/2006	5050	1.00	5050	94	1.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24713164.8
5573540	7/15/2008	4970	1.00	4970	96	2.0063%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24321669.12
5573540	5/1/2009	4930	1.00	4930	97	2.0272%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24125921.28
5573540	5/22/1995	4910	1.00	4910	98	2.0481%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24028047.36
5573540	6/15/1998	4910	1.00	4910	98	2.0481%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24028047.36
5573540	6/22/1990	4880	1.00	4880	100	2.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23881236.48
5573540	6/6/2001	4880	1.00	4880	100	2.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23881236.48
5573540	6/21/1990	4860	1.00	4860	102	2.1317%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23783362.56
5573540	6/20/1990	4830	1.00	4830	103	2.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23636551.68
5573540	10/20/1993	4810	1.00	4810	104	2.1735%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23538677.76
5573540	5/11/1998	4770	1.00	4770	105	2.1944%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23342929.92
5573540	5/19/1990	4750	1.00	4750	106	2.2153%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23245056
5573540	9/20/2008	4740	1.00	4740	107	2.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23196119.04
5573540	6/20/2009	4730	1.00	4730	108	2.2571%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23147182.08
5573540	7/13/2008	4690	1.00	4690	109	2.2780%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22951434.24
5573540	5/7/2002	4670	1.00	4670	110	2.2989%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22853560.32
5573540	6/12/2008	4650	1.00	4650	111	2.3197%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22755686.4
5573540	7/27/1992	4650	1.00	4650	111	2.3197%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22755686.4
5573540	6/14/2010	4630	1.00	4630	113	2.3615%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22657812.48
5573540	5/1/2011	4620	1.00	4620	114	2.3824%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22608875.52
5573540	10/23/1993	4620	1.00	4620	114	2.3824%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22608875.52
5573540	7/6/1993	4590	1.00	4590	116	2.4242%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22462064.64
5573540	5/15/1996	4580	1.00	4580	117	2.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22413127.68
5573540	5/12/1998	4520	1.00	4520	118	2.4660%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22119505.92
5573540	6/17/2004	4520	1.00	4520	118	2.4660%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22119505.92
5573540	7/5/1993	4520	1.00	4520	118	2.4660%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22119505.92
5573540	5/2/2009	4500	1.00	4500	121	2.5287%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22021632
5573540	10/22/1993	4500	1.00	4500	121	2.5287%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22021632
5573540	5/7/1998	4490	1.00	4490	123	2.5705%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21972695.04
5573540	6/15/2015	4480	1.00	4480	124	2.5914%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21923758.08
5573540	5/10/1998	4470	1.00	4470	125	2.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21874821.12
5573540	6/24/1998	4450	1.00	4450	126	2.6332%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21776947.2
5573540	5/16/1995	4430	1.00	4430	127	2.6541%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21679073.28
5573540	5/6/1998	4420	1.00	4420	128	2.6750%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21630136.32
5573540	6/15/2004	4420	1.00	4420	128	2.6750%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21630136.32
5573540	5/27/2011	4410	1.00	4410	130	2.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21581199.36
5573540	5/31/1995	4400	1.00	4400	131	2.7377%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21532262.4
5573540	5/29/1996	4370	1.00	4370	132	2.7586%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21385451.52
5573540	6/1/2011	4360	1.00	4360	133	2.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21336514.56
5573540	5/23/1995	4350	1.00	4350	134	2.8004%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21287577.6
5573540	5/15/2009	4340	1.00	4340	135	2.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21238640.64
5573540	6/15/2010	4320	1.00	4320	136	2.8422%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21140766.72
5573540	6/23/1990	4300	1.00	4300	137	2.8631%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21042892.8
5573540	5/15/1995	4230	1.00	4230	138	2.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20700334.08

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/30/2015	4220	1.00	4220	139	2.9049%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20651397.12
5573540	6/18/2004	4200	1.00	4200	140	2.9258%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20553523.2
5573540	5/28/1996	4190	1.00	4190	141	2.9467%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20504586.24
5573540	6/24/1990	4140	1.00	4140	142	2.9676%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20259901.44
5573540	6/13/2008	4130	1.00	4130	143	2.9885%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20210964.48
5573540	6/2/2013	4110	1.00	4110	144	3.0094%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20113090.56
5573540	7/15/2015	4110	1.00	4110	144	3.0094%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20113090.56
5573540	5/3/2009	4090	1.00	4090	146	3.0512%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20015216.64
5573540	5/9/2002	4030	1.00	4030	147	3.0721%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19721594.88
5573540	7/1/2015	4030	1.00	4030	147	3.0721%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19721594.88
5573540	6/22/1998	4010	1.00	4010	149	3.1139%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19623720.96
5573540	5/21/2009	3960	1.00	3960	150	3.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19379036.16
5573540	7/14/2008	3950	1.00	3950	151	3.1557%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19330099.2
5573540	10/29/2009	3940	1.00	3940	152	3.1766%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19281162.24
5573540	6/30/2013	3930	1.00	3930	153	3.1975%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19232225.28
5573540	7/4/1993	3920	1.00	3920	154	3.2184%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19183288.32
5573540	6/25/2010	3910	1.00	3910	155	3.2393%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19134351.36
5573540	7/7/1993	3910	1.00	3910	155	3.2393%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19134351.36
5573540	7/19/2014	3900	1.00	3900	157	3.2811%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19085414.4
5573540	6/2/2011	3890	1.00	3890	158	3.3020%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19036477.44
5573540	7/11/2008	3870	1.00	3870	159	3.3229%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18938603.52
5573540	6/3/2013	3840	1.00	3840	160	3.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18791792.64
5573540	6/2/1996	3830	1.00	3830	161	3.3647%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18742855.68
5573540	6/16/2015	3810	1.00	3810	162	3.3856%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18644981.76
5573540	7/9/2015	3740	1.00	3740	163	3.4065%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18302423.04
5573540	5/18/2002	3720	1.00	3720	164	3.4274%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18204549.12
5573540	5/19/2002	3660	1.00	3660	165	3.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17910927.36
5573540	5/14/1995	3630	1.00	3630	166	3.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17764116.48
5573540	6/29/2015	3630	1.00	3630	166	3.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17764116.48
5573540	5/20/1990	3580	1.00	3580	168	3.5110%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17519431.68
5573540	6/7/2001	3530	1.00	3530	169	3.5319%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17274746.88
5573540	10/28/2009	3500	1.00	3500	170	3.5528%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17127936
5573540	6/4/1996	3490	1.00	3490	171	3.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17078999.04
5573540	6/19/2004	3490	1.00	3490	171	3.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17078999.04
5573540	6/25/1990	3480	1.00	3480	173	3.6155%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17030062.08
5573540	6/3/1996	3480	1.00	3480	173	3.6155%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17030062.08
5573540	9/21/2008	3480	1.00	3480	173	3.6155%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17030062.08
5573540	6/1/1996	3440	1.00	3440	176	3.6782%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16834314.24
5573540	5/11/1995	3420	1.00	3420	177	3.6991%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16736440.32
5573540	5/25/1998	3420	1.00	3420	177	3.6991%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16736440.32
5573540	5/10/2002	3420	1.00	3420	177	3.6991%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16736440.32
5573540	6/27/2015	3400	1.00	3400	180	3.7618%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16638566.4
5573540	5/31/1996	3380	1.00	3380	181	3.7827%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16540692.48
5573540	5/1/1994	3360	1.00	3360	182	3.8036%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16442818.56
5573540	5/11/2002	3350	1.00	3350	183	3.8245%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16393881.6
5573540	5/13/1998	3330	1.00	3330	184	3.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16296007.68

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/14/1998	3330	1.00	3330	184	3.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16296007.68
5573540	6/13/2010	3330	1.00	3330	184	3.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16296007.68
5573540	6/15/2011	3320	1.00	3320	187	3.9080%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16247070.72
5573540	6/17/2015	3320	1.00	3320	187	3.9080%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16247070.72
5573540	5/13/1995	3310	1.00	3310	189	3.9498%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16198133.76
5573540	6/13/1998	3310	1.00	3310	189	3.9498%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16198133.76
5573540	6/28/2015	3310	1.00	3310	189	3.9498%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16198133.76
5573540	6/19/2015	3300	1.00	3300	192	4.0125%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16149196.8
5573540	5/5/1996	3280	1.00	3280	193	4.0334%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16051322.88
5573540	10/19/1993	3280	1.00	3280	193	4.0334%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16051322.88
5573540	5/2/2011	3260	1.00	3260	195	4.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15953448.96
5573540	6/18/2015	3260	1.00	3260	195	4.0752%	Fecal_coliform	92	cfu/100mL	200	283.2	7338586.522	15953448.96
5573540	5/30/1996	3250	1.00	3250	197	4.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15904512
5573540	5/4/2009	3250	1.00	3250	197	4.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15904512
5573540	7/2/2015	3250	1.00	3250	197	4.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15904512
5573540	10/27/1993	3250	1.00	3250	197	4.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15904512
5573540	6/1/2013	3240	1.00	3240	201	4.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15855575.04
5573540	6/27/2013	3240	1.00	3240	201	4.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15855575.04
5573540	7/30/2006	3230	1.00	3230	203	4.2424%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15806638.08
5573540	7/16/2008	3220	1.00	3220	204	4.2633%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15757701.12
5573540	5/18/1991	3200	1.00	3200	205	4.2842%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659827.2
5573540	5/8/2002	3180	1.00	3180	206	4.3051%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15561953.28
5573540	7/10/2015	3160	1.00	3160	207	4.3260%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15464079.36
5573540	10/27/2009	3160	1.00	3160	207	4.3260%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15464079.36
5573540	6/14/1998	3140	1.00	3140	209	4.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15366205.44
5573540	6/21/2009	3140	1.00	3140	209	4.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15366205.44
5573540	5/22/2009	3120	1.00	3120	211	4.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15268331.52
5573540	6/4/2013	3120	1.00	3120	211	4.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15268331.52
5573540	6/25/1998	3110	1.00	3110	213	4.4514%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15219394.56
5573540	6/1/1995	3100	1.00	3100	214	4.4723%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15170457.6
5573540	6/14/2008	3100	1.00	3100	214	4.4723%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15170457.6
5573540	7/3/1993	3090	1.00	3090	216	4.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15121520.64
5573540	5/12/1995	3080	1.00	3080	217	4.5350%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15072583.68
5573540	5/20/2002	3080	1.00	3080	217	4.5350%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15072583.68
5573540	6/26/2010	3060	1.00	3060	219	4.5768%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14974709.76
5573540	5/6/2009	3050	1.00	3050	220	4.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14925772.8
5573540	5/21/1990	3040	1.00	3040	221	4.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14876835.84
5573540	5/8/1994	3040	1.00	3040	221	4.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14876835.84
5573540	10/14/1990	3040	1.00	3040	221	4.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14876835.84
5573540	5/9/1994	3030	1.00	3030	224	4.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14827898.88
5573540	5/10/1995	3030	1.00	3030	224	4.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14827898.88
5573540	7/14/2014	3020	1.00	3020	226	4.7231%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14778961.92
5573540	6/5/1996	3000	1.00	3000	227	4.7440%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14681088
5573540	5/1/2002	2990	1.00	2990	228	4.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14632151.04
5573540	5/26/1998	2980	1.00	2980	229	4.7858%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14583214.08
5573540	7/28/1992	2940	1.00	2940	230	4.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14387466.24

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/19/1991	2930	1.00	2930	231	4.8276%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14338529.28
5573540	7/10/2008	2920	1.00	2920	232	4.8485%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14289592.32
5573540	5/2/1994	2910	1.00	2910	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14240655.36
5573540	5/10/2003	2910	1.00	2910	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14240655.36
5573540	5/5/2009	2910	1.00	2910	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14240655.36
5573540	5/28/2013	2910	1.00	2910	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14240655.36
5573540	6/10/1996	2910	1.00	2910	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14240655.36
5573540	9/28/1993	2910	1.00	2910	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14240655.36
5573540	5/26/1996	2900	1.00	2900	239	4.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191718.4
5573540	6/14/2002	2900	1.00	2900	239	4.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191718.4
5573540	7/8/1993	2900	1.00	2900	239	4.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191718.4
5573540	5/15/2004	2890	1.00	2890	242	5.0575%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14142781.44
5573540	7/11/2015	2890	1.00	2890	242	5.0575%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14142781.44
5573540	6/27/1990	2880	1.00	2880	244	5.0993%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14093844.48
5573540	6/6/1996	2870	1.00	2870	245	5.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14044907.52
5573540	6/14/2003	2870	1.00	2870	245	5.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14044907.52
5573540	6/26/1998	2860	1.00	2860	247	5.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13995970.56
5573540	6/5/2013	2860	1.00	2860	247	5.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13995970.56
5573540	6/13/2002	2850	1.00	2850	249	5.2038%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13947033.6
5573540	6/20/2015	2850	1.00	2850	249	5.2038%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13947033.6
5573540	7/30/1993	2840	1.00	2840	251	5.2456%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13898096.64
5573540	5/2/1998	2830	1.00	2830	252	5.2665%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13849159.68
5573540	7/16/2015	2830	1.00	2830	252	5.2665%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13849159.68
5573540	6/26/1990	2820	1.00	2820	254	5.3083%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13800222.72
5573540	6/24/2014	2820	1.00	2820	254	5.3083%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13800222.72
5573540	7/20/2014	2820	1.00	2820	254	5.3083%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13800222.72
5573540	5/21/1991	2810	1.00	2810	257	5.3710%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13751285.76
5573540	6/27/2010	2810	1.00	2810	257	5.3710%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13751285.76
5573540	7/13/2014	2810	1.00	2810	257	5.3710%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13751285.76
5573540	10/24/1993	2810	1.00	2810	257	5.3710%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13751285.76
5573540	10/29/1993	2810	1.00	2810	257	5.3710%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13751285.76
5573540	5/16/1996	2800	1.00	2800	262	5.4754%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13702348.8
5573540	5/17/1991	2790	1.00	2790	263	5.4963%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13653411.84
5573540	6/12/1996	2780	1.00	2780	264	5.5172%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13604474.88
5573540	5/4/1996	2770	1.00	2770	265	5.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13555537.92
5573540	6/4/1995	2770	1.00	2770	265	5.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13555537.92
5573540	6/3/2011	2770	1.00	2770	265	5.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13555537.92
5573540	6/20/2004	2760	1.00	2760	268	5.6008%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13506600.96
5573540	5/3/2011	2750	1.00	2750	269	5.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13457664
5573540	6/22/2009	2750	1.00	2750	269	5.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13457664
5573540	6/26/2013	2750	1.00	2750	269	5.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13457664
5573540	6/7/1996	2740	1.00	2740	272	5.6844%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13408727.04
5573540	6/6/2004	2740	1.00	2740	272	5.6844%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13408727.04
5573540	5/17/1996	2730	1.00	2730	274	5.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13359790.08
5573540	6/15/2002	2730	1.00	2730	274	5.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13359790.08
5573540	6/27/1998	2720	1.00	2720	276	5.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13310853.12

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/12/2002	2720	1.00	2720	276	5.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13310853.12
5573540	7/1/2013	2720	1.00	2720	276	5.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13310853.12
5573540	10/16/1990	2720	1.00	2720	276	5.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13310853.12
5573540	10/26/2009	2720	1.00	2720	276	5.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13310853.12
5573540	6/4/2014	2710	1.00	2710	281	5.8725%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13261916.16
5573540	9/29/1993	2700	1.00	2700	282	5.8934%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212979.2
5573540	10/11/1993	2700	1.00	2700	282	5.8934%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212979.2
5573540	5/2/2002	2690	1.00	2690	284	5.9352%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13164042.24
5573540	10/13/1990	2690	1.00	2690	284	5.9352%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13164042.24
5573540	6/14/1999	2670	1.00	2670	286	5.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13066168.32
5573540	6/11/1996	2640	1.00	2640	287	5.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12919357.44
5573540	6/6/2013	2630	1.00	2630	288	6.0188%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12870420.48
5573540	10/15/1990	2630	1.00	2630	288	6.0188%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12870420.48
5573540	10/24/2009	2620	1.00	2620	290	6.0606%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12821483.52
5573540	5/15/1998	2610	1.00	2610	291	6.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12772546.56
5573540	7/27/2006	2600	1.00	2600	292	6.1024%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723609.6
5573540	5/3/2002	2590	1.00	2590	293	6.1233%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12674672.64
5573540	5/16/2008	2580	1.00	2580	294	6.1442%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12625735.68
5573540	5/27/1998	2570	1.00	2570	295	6.1651%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12576798.72
5573540	6/15/2003	2570	1.00	2570	295	6.1651%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12576798.72
5573540	6/28/2011	2570	1.00	2570	295	6.1651%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12576798.72
5573540	6/26/2015	2570	1.00	2570	295	6.1651%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12576798.72
5573540	6/16/2002	2560	1.00	2560	299	6.2487%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12527861.76
5573540	5/15/1990	2550	1.00	2550	300	6.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12478924.8
5573540	10/10/1990	2550	1.00	2550	300	6.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12478924.8
5573540	10/12/1990	2550	1.00	2550	300	6.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12478924.8
5573540	5/20/1991	2540	1.00	2540	303	6.3323%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12429987.84
5573540	6/12/1998	2540	1.00	2540	303	6.3323%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12429987.84
5573540	6/16/2011	2540	1.00	2540	303	6.3323%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12429987.84
5573540	5/1/1998	2530	1.00	2530	306	6.3950%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12381050.88
5573540	6/13/2004	2520	1.00	2520	307	6.4159%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12332113.92
5573540	7/9/2008	2520	1.00	2520	307	6.4159%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12332113.92
5573540	5/18/1996	2510	1.00	2510	309	6.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12283176.96
5573540	6/18/2011	2510	1.00	2510	309	6.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12283176.96
5573540	5/22/1990	2500	1.00	2500	311	6.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234240
5573540	5/19/2008	2500	1.00	2500	311	6.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234240
5573540	9/8/1993	2500	1.00	2500	311	6.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234240
5573540	6/25/2014	2480	1.00	2480	314	6.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12136366.08
5573540	9/22/2008	2480	1.00	2480	314	6.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12136366.08
5573540	9/27/1993	2470	1.00	2470	316	6.6040%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12087429.12
5573540	5/24/1998	2440	1.00	2440	317	6.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11940618.24
5573540	5/4/2002	2440	1.00	2440	317	6.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11940618.24
5573540	6/21/2015	2440	1.00	2440	317	6.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11940618.24
5573540	7/29/1993	2440	1.00	2440	317	6.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11940618.24
5573540	5/14/2004	2430	1.00	2430	321	6.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11891681.28
5573540	6/13/1995	2420	1.00	2420	322	6.7294%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11842744.32

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/4/2011	2410	1.00	2410	323	6.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11793807.36
5573540	7/3/2015	2410	1.00	2410	323	6.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11793807.36
5573540	10/12/1993	2410	1.00	2410	323	6.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11793807.36
5573540	10/25/2009	2410	1.00	2410	323	6.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11793807.36
5573540	5/29/2013	2400	1.00	2400	327	6.8339%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744870.4
5573540	6/22/2015	2390	1.00	2390	328	6.8548%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11695933.44
5573540	5/14/1990	2380	1.00	2380	329	6.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11646996.48
5573540	7/6/2014	2380	1.00	2380	329	6.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11646996.48
5573540	9/30/1993	2380	1.00	2380	329	6.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11646996.48
5573540	6/2/1995	2370	1.00	2370	332	6.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11598059.52
5573540	5/10/1994	2360	1.00	2360	333	6.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11549122.56
5573540	5/21/2002	2360	1.00	2360	333	6.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11549122.56
5573540	6/28/1998	2360	1.00	2360	333	6.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11549122.56
5573540	6/19/2009	2360	1.00	2360	333	6.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11549122.56
5573540	7/5/2000	2360	1.00	2360	333	6.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11549122.56
5573540	5/22/1991	2350	1.00	2350	338	7.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11500185.6
5573540	6/28/2010	2350	1.00	2350	338	7.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11500185.6
5573540	7/16/1993	2350	1.00	2350	338	7.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11500185.6
5573540	10/28/1993	2350	1.00	2350	338	7.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11500185.6
5573540	9/18/1993	2340	1.00	2340	342	7.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11451248.64
5573540	10/18/1993	2340	1.00	2340	342	7.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11451248.64
5573540	6/13/1996	2330	1.00	2330	344	7.1891%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11402311.68
5573540	7/29/1992	2330	1.00	2330	344	7.1891%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11402311.68
5573540	10/13/1993	2320	1.00	2320	346	7.2309%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11353374.72
5573540	5/23/1991	2310	1.00	2310	347	7.2518%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11304437.76
5573540	5/24/1991	2310	1.00	2310	347	7.2518%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11304437.76
5573540	6/19/1990	2310	1.00	2310	347	7.2518%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11304437.76
5573540	8/29/2004	2310	1.00	2310	347	7.2518%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11304437.76
5573540	5/7/2009	2300	1.00	2300	351	7.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255500.8
5573540	5/23/2009	2300	1.00	2300	351	7.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255500.8
5573540	6/3/1995	2290	1.00	2290	353	7.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11206563.84
5573540	7/13/2006	2290	1.00	2290	353	7.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11206563.84
5573540	8/28/2004	2290	1.00	2290	353	7.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11206563.84
5573540	9/13/2014	2290	1.00	2290	353	7.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11206563.84
5573540	5/10/2013	2280	1.00	2280	357	7.4608%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11157626.88
5573540	9/19/1993	2280	1.00	2280	357	7.4608%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11157626.88
5573540	9/24/1993	2280	1.00	2280	357	7.4608%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11157626.88
5573540	10/11/1990	2280	1.00	2280	357	7.4608%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11157626.88
5573540	7/15/2003	2270	1.00	2270	361	7.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11108689.92
5573540	9/17/1993	2270	1.00	2270	361	7.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11108689.92
5573540	9/16/1993	2260	1.00	2260	363	7.5862%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11059752.96
5573540	5/1/1996	2250	1.00	2250	364	7.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11010816
5573540	6/8/1996	2250	1.00	2250	364	7.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11010816
5573540	6/5/2014	2250	1.00	2250	364	7.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11010816
5573540	8/19/2006	2250	1.00	2250	364	7.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11010816
5573540	7/3/2014	2240	1.00	2240	368	7.6907%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10961879.04

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/13/1990	2230	1.00	2230	369	7.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10912942.08
5573540	6/12/2014	2230	1.00	2230	369	7.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10912942.08
5573540	9/7/1993	2230	1.00	2230	369	7.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10912942.08
5573540	10/1/1993	2230	1.00	2230	369	7.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10912942.08
5573540	10/10/1993	2230	1.00	2230	369	7.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10912942.08
5573540	5/25/1991	2210	1.00	2210	374	7.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10815068.16
5573540	5/3/1994	2210	1.00	2210	374	7.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10815068.16
5573540	5/11/2003	2210	1.00	2210	374	7.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10815068.16
5573540	5/6/2013	2210	1.00	2210	374	7.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10815068.16
5573540	6/7/2013	2210	1.00	2210	374	7.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10815068.16
5573540	5/23/1990	2200	1.00	2200	379	7.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766131.2
5573540	6/15/1990	2200	1.00	2200	379	7.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766131.2
5573540	6/30/1990	2200	1.00	2200	379	7.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766131.2
5573540	6/13/1999	2190	1.00	2190	382	7.9833%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10717194.24
5573540	5/15/2008	2180	1.00	2180	383	8.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10668257.28
5573540	7/5/2014	2180	1.00	2180	383	8.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10668257.28
5573540	6/17/2002	2170	1.00	2170	385	8.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10619320.32
5573540	6/23/2009	2170	1.00	2170	385	8.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10619320.32
5573540	7/7/2014	2170	1.00	2170	385	8.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10619320.32
5573540	10/9/1990	2170	1.00	2170	385	8.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10619320.32
5573540	5/9/1995	2160	1.00	2160	389	8.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10570383.36
5573540	5/22/2002	2160	1.00	2160	389	8.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10570383.36
5573540	10/14/1993	2160	1.00	2160	389	8.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10570383.36
5573540	5/18/2008	2150	1.00	2150	392	8.1923%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10521446.4
5573540	6/8/2001	2150	1.00	2150	392	8.1923%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10521446.4
5573540	6/12/2010	2150	1.00	2150	392	8.1923%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10521446.4
5573540	7/16/2003	2150	1.00	2150	392	8.1923%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10521446.4
5573540	5/11/2013	2140	1.00	2140	396	8.2759%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10472509.44
5573540	6/19/2011	2140	1.00	2140	396	8.2759%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10472509.44
5573540	5/12/2008	2130	1.00	2130	398	8.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10423572.48
5573540	6/5/2004	2130	1.00	2130	398	8.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10423572.48
5573540	6/25/2015	2130	1.00	2130	398	8.3177%	Fecal_coliform	2350	cfu/100mL	200	283.2	122476976.6	10423572.48
5573540	7/30/1992	2130	1.00	2130	398	8.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10423572.48
5573540	6/5/1999	2120	1.00	2120	402	8.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10374635.52
5573540	7/9/1992	2120	1.00	2120	402	8.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10374635.52
5573540	6/15/1999	2110	1.00	2110	404	8.4431%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10325698.56
5573540	9/12/1993	2110	1.00	2110	404	8.4431%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10325698.56
5573540	5/5/2013	2100	1.00	2100	406	8.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276761.6
5573540	6/28/1990	2100	1.00	2100	406	8.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276761.6
5573540	7/28/1993	2100	1.00	2100	406	8.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276761.6
5573540	5/19/1996	2090	1.00	2090	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10227824.64
5573540	5/16/2004	2090	1.00	2090	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10227824.64
5573540	6/30/1998	2090	1.00	2090	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10227824.64
5573540	6/11/2011	2090	1.00	2090	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10227824.64
5573540	6/13/2014	2090	1.00	2090	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10227824.64
5573540	6/23/2015	2090	1.00	2090	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10227824.64

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/14/2003	2090	1.00	2090	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10227824.64
5573540	7/4/2014	2090	1.00	2090	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10227824.64
5573540	10/2/1993	2090	1.00	2090	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10227824.64
5573540	5/17/2008	2080	1.00	2080	418	8.7356%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10178887.68
5573540	6/30/1993	2080	1.00	2080	418	8.7356%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10178887.68
5573540	10/17/1993	2070	1.00	2070	420	8.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10129950.72
5573540	5/7/1994	2060	1.00	2060	421	8.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10081013.76
5573540	7/25/2010	2060	1.00	2060	421	8.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10081013.76
5573540	5/12/1994	2050	1.00	2050	423	8.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10032076.8
5573540	5/14/2008	2050	1.00	2050	423	8.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10032076.8
5573540	6/6/1999	2050	1.00	2050	423	8.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10032076.8
5573540	6/12/2015	2050	1.00	2050	423	8.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10032076.8
5573540	5/27/1990	2040	1.00	2040	427	8.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9983139.84
5573540	5/28/2004	2040	1.00	2040	427	8.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9983139.84
5573540	6/4/2011	2040	1.00	2040	427	8.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9983139.84
5573540	5/5/1993	2030	1.00	2030	430	8.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9934202.88
5573540	5/27/2004	2030	1.00	2030	430	8.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9934202.88
5573540	6/29/1990	2030	1.00	2030	430	8.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9934202.88
5573540	6/14/2004	2030	1.00	2030	430	8.9864%	Fecal_coliform	110	cfu/100mL	200	283.2	5463811.584	9934202.88
5573540	6/11/2014	2030	1.00	2030	430	8.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9934202.88
5573540	10/23/2009	2030	1.00	2030	430	8.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9934202.88
5573540	5/20/2004	2020	1.00	2020	436	9.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9885265.92
5573540	5/13/2009	2020	1.00	2020	436	9.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9885265.92
5573540	9/15/1993	2020	1.00	2020	436	9.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9885265.92
5573540	7/5/1990	2010	1.00	2010	439	9.1745%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9836328.96
5573540	7/31/1992	2010	1.00	2010	439	9.1745%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9836328.96
5573540	7/27/1993	2010	1.00	2010	439	9.1745%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9836328.96
5573540	7/2/2014	2010	1.00	2010	439	9.1745%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9836328.96
5573540	6/11/2010	2000	1.00	2000	443	9.2581%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787392
5573540	5/11/1994	1990	1.00	1990	444	9.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9738455.04
5573540	7/2/1993	1990	1.00	1990	444	9.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9738455.04
5573540	9/26/1993	1990	1.00	1990	444	9.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9738455.04
5573540	10/25/2001	1990	1.00	1990	444	9.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9738455.04
5573540	6/16/1990	1980	1.00	1980	448	9.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9689518.08
5573540	5/20/2010	1970	1.00	1970	449	9.3835%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9640581.12
5573540	5/25/1990	1960	1.00	1960	450	9.4044%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9591644.16
5573540	5/29/2004	1960	1.00	1960	450	9.4044%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9591644.16
5573540	5/19/2010	1950	1.00	1950	452	9.4462%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9542707.2
5573540	5/9/1991	1940	1.00	1940	453	9.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9493770.24
5573540	6/1/2008	1940	1.00	1940	453	9.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9493770.24
5573540	9/25/1993	1940	1.00	1940	453	9.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9493770.24
5573540	5/5/1994	1930	1.00	1930	456	9.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9444833.28
5573540	5/21/2004	1930	1.00	1930	456	9.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9444833.28
5573540	6/7/2004	1930	1.00	1930	456	9.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9444833.28
5573540	7/6/2000	1930	1.00	1930	456	9.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9444833.28
5573540	9/5/1993	1930	1.00	1930	456	9.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9444833.28

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/1/1993	1920	1.00	1920	461	9.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9395896.32
5573540	5/2/2007	1920	1.00	1920	461	9.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9395896.32
5573540	6/15/2008	1920	1.00	1920	461	9.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9395896.32
5573540	5/21/2010	1910	1.00	1910	464	9.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9346959.36
5573540	9/11/1993	1910	1.00	1910	464	9.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9346959.36
5573540	9/23/1993	1910	1.00	1910	464	9.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9346959.36
5573540	5/1/2007	1900	1.00	1900	467	9.7597%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298022.4
5573540	7/8/2008	1900	1.00	1900	467	9.7597%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298022.4
5573540	5/28/1990	1890	1.00	1890	469	9.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9249085.44
5573540	5/30/2004	1890	1.00	1890	469	9.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9249085.44
5573540	7/10/1992	1890	1.00	1890	469	9.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9249085.44
5573540	7/13/1992	1890	1.00	1890	469	9.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9249085.44
5573540	5/20/1996	1880	1.00	1880	473	9.8851%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9200148.48
5573540	7/2/2013	1880	1.00	1880	473	9.8851%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9200148.48
5573540	5/26/1990	1870	1.00	1870	475	9.9269%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9151211.52
5573540	5/11/1991	1850	1.00	1850	476	9.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9053337.6
5573540	5/13/2008	1850	1.00	1850	476	9.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9053337.6
5573540	6/14/1995	1850	1.00	1850	476	9.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9053337.6
5573540	7/12/1992	1850	1.00	1850	476	9.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9053337.6
5573540	5/23/2002	1840	1.00	1840	480	10.0313%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9004400.64
5573540	5/19/2004	1840	1.00	1840	480	10.0313%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9004400.64
5573540	7/25/1990	1840	1.00	1840	480	10.0313%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9004400.64
5573540	10/26/1993	1840	1.00	1840	480	10.0313%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9004400.64
5573540	6/18/2002	1830	1.00	1830	484	10.1149%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8955463.68
5573540	7/3/1990	1830	1.00	1830	484	10.1149%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8955463.68
5573540	7/14/1992	1830	1.00	1830	484	10.1149%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8955463.68
5573540	7/31/1993	1830	1.00	1830	484	10.1149%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8955463.68
5573540	5/2/1993	1820	1.00	1820	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8906526.72
5573540	5/6/1994	1820	1.00	1820	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8906526.72
5573540	5/22/2010	1820	1.00	1820	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8906526.72
5573540	5/7/2013	1820	1.00	1820	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8906526.72
5573540	6/10/2010	1820	1.00	1820	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8906526.72
5573540	7/1/1990	1820	1.00	1820	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8906526.72
5573540	6/20/1993	1810	1.00	1810	494	10.3239%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8857589.76
5573540	7/4/2015	1810	1.00	1810	494	10.3239%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8857589.76
5573540	9/12/2014	1810	1.00	1810	494	10.3239%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8857589.76
5573540	5/4/2013	1800	1.00	1800	497	10.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808652.8
5573540	6/27/2011	1800	1.00	1800	497	10.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808652.8
5573540	6/10/2014	1800	1.00	1800	497	10.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808652.8
5573540	8/27/2004	1800	1.00	1800	497	10.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808652.8
5573540	6/13/2003	1790	1.00	1790	501	10.4702%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8759715.84
5573540	6/9/2014	1790	1.00	1790	501	10.4702%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8759715.84
5573540	10/17/1990	1790	1.00	1790	501	10.4702%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8759715.84
5573540	10/3/1993	1790	1.00	1790	501	10.4702%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8759715.84
5573540	5/24/1990	1780	1.00	1780	505	10.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8710778.88
5573540	5/16/2014	1780	1.00	1780	505	10.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8710778.88

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/8/2014	1780	1.00	1780	505	10.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8710778.88
5573540	7/17/2015	1780	1.00	1780	505	10.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8710778.88
5573540	10/4/2014	1780	1.00	1780	505	10.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8710778.88
5573540	5/2/1996	1770	1.00	1770	510	10.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8661841.92
5573540	5/5/2002	1770	1.00	1770	510	10.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8661841.92
5573540	6/8/1995	1770	1.00	1770	510	10.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8661841.92
5573540	6/4/2004	1770	1.00	1770	510	10.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8661841.92
5573540	9/20/1993	1770	1.00	1770	510	10.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8661841.92
5573540	5/31/2004	1760	1.00	1760	515	10.7628%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8612904.96
5573540	7/9/1993	1760	1.00	1760	515	10.7628%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8612904.96
5573540	8/1/1992	1760	1.00	1760	515	10.7628%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8612904.96
5573540	5/17/2014	1750	1.00	1750	518	10.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8563968
5573540	6/12/2004	1750	1.00	1750	518	10.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8563968
5573540	7/1/1998	1750	1.00	1750	518	10.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8563968
5573540	7/4/1998	1750	1.00	1750	518	10.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8563968
5573540	5/26/2004	1740	1.00	1740	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8515031.04
5573540	6/19/2002	1740	1.00	1740	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8515031.04
5573540	7/6/1990	1740	1.00	1740	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8515031.04
5573540	7/1/1993	1740	1.00	1740	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8515031.04
5573540	7/17/2008	1740	1.00	1740	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8515031.04
5573540	10/31/2001	1740	1.00	1740	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8515031.04
5573540	5/10/1991	1730	1.00	1730	528	11.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8466094.08
5573540	5/4/1994	1730	1.00	1730	528	11.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8466094.08
5573540	5/29/2000	1730	1.00	1730	528	11.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8466094.08
5573540	6/21/2004	1730	1.00	1730	528	11.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8466094.08
5573540	6/12/1995	1720	1.00	1720	532	11.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8417157.12
5573540	6/9/1996	1720	1.00	1720	532	11.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8417157.12
5573540	6/24/2015	1720	1.00	1720	532	11.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8417157.12
5573540	9/14/2014	1720	1.00	1720	532	11.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8417157.12
5573540	5/8/2009	1710	1.00	1710	536	11.2017%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8368220.16
5573540	6/2/2008	1710	1.00	1710	536	11.2017%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8368220.16
5573540	6/9/2011	1710	1.00	1710	536	11.2017%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8368220.16
5573540	5/18/2014	1700	1.00	1700	539	11.2644%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319283.2
5573540	5/11/2008	1690	1.00	1690	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8270346.24
5573540	5/30/2013	1690	1.00	1690	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8270346.24
5573540	5/15/2014	1690	1.00	1690	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8270346.24
5573540	6/5/1995	1690	1.00	1690	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8270346.24
5573540	6/2/1999	1690	1.00	1690	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8270346.24
5573540	6/17/2003	1690	1.00	1690	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8270346.24
5573540	9/16/2014	1690	1.00	1690	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8270346.24
5573540	10/15/2014	1690	1.00	1690	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8270346.24
5573540	5/22/2004	1680	1.00	1680	548	11.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8221409.28
5573540	6/9/1993	1680	1.00	1680	548	11.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8221409.28
5573540	6/16/2003	1680	1.00	1680	548	11.4525%	Fecal_coliform	100	cfu/100mL	200	283.2	4110704.64	8221409.28
5573540	6/1/2006	1680	1.00	1680	548	11.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8221409.28
5573540	5/5/2011	1670	1.00	1670	552	11.5361%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8172472.32

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/8/1993	1670	1.00	1670	552	11.5361%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8172472.32
5573540	10/16/2014	1670	1.00	1670	552	11.5361%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8172472.32
5573540	5/12/2013	1660	1.00	1660	555	11.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8123535.36
5573540	5/31/2013	1660	1.00	1660	555	11.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8123535.36
5573540	5/11/2015	1660	1.00	1660	555	11.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8123535.36
5573540	10/25/1993	1650	1.00	1650	558	11.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8074598.4
5573540	5/16/1991	1640	1.00	1640	559	11.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8025661.44
5573540	5/3/2013	1640	1.00	1640	559	11.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8025661.44
5573540	9/9/1993	1640	1.00	1640	559	11.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8025661.44
5573540	6/14/2014	1630	1.00	1630	562	11.7450%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7976724.48
5573540	10/3/2014	1630	1.00	1630	562	11.7450%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7976724.48
5573540	5/13/2003	1610	1.00	1610	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7878850.56
5573540	5/20/2008	1610	1.00	1610	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7878850.56
5573540	6/29/2010	1610	1.00	1610	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7878850.56
5573540	6/5/2011	1610	1.00	1610	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7878850.56
5573540	7/22/2008	1610	1.00	1610	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7878850.56
5573540	8/27/2002	1610	1.00	1610	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7878850.56
5573540	5/15/2003	1600	1.00	1600	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829913.6
5573540	5/18/2004	1600	1.00	1600	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829913.6
5573540	6/15/1995	1600	1.00	1600	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829913.6
5573540	7/17/1993	1600	1.00	1600	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829913.6
5573540	9/5/2008	1600	1.00	1600	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829913.6
5573540	10/5/2014	1600	1.00	1600	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829913.6
5573540	5/12/1991	1590	1.00	1590	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7780976.64
5573540	5/9/2009	1590	1.00	1590	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7780976.64
5573540	5/23/2010	1590	1.00	1590	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7780976.64
5573540	6/10/1993	1590	1.00	1590	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7780976.64
5573540	6/3/2004	1590	1.00	1590	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7780976.64
5573540	7/22/1990	1590	1.00	1590	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7780976.64
5573540	10/16/1993	1590	1.00	1590	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7780976.64
5573540	5/29/1990	1580	1.00	1580	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7732039.68
5573540	5/24/2009	1580	1.00	1580	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7732039.68
5573540	6/29/1998	1580	1.00	1580	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7732039.68
5573540	6/16/1999	1580	1.00	1580	583	12.1839%	Fecal_coliform	220	cfu/100mL	200	283.2	8505243.648	7732039.68
5573540	7/11/1992	1580	1.00	1580	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7732039.68
5573540	7/15/1993	1580	1.00	1580	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7732039.68
5573540	7/31/2006	1580	1.00	1580	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7732039.68
5573540	9/6/1993	1580	1.00	1580	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7732039.68
5573540	10/31/2004	1580	1.00	1580	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7732039.68
5573540	6/11/1998	1570	1.00	1570	592	12.3720%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7683102.72
5573540	7/21/2014	1570	1.00	1570	592	12.3720%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7683102.72
5573540	7/4/1990	1560	1.00	1560	594	12.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7634165.76
5573540	5/9/2013	1550	1.00	1550	595	12.4347%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7585228.8
5573540	10/15/1993	1550	1.00	1550	595	12.4347%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7585228.8
5573540	5/30/1990	1540	1.00	1540	597	12.4765%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7536291.84
5573540	5/6/1996	1540	1.00	1540	597	12.4765%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7536291.84

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/6/2011	1540	1.00	1540	597	12.4765%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7536291.84
5573540	6/24/2000	1530	1.00	1530	600	12.5392%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7487354.88
5573540	7/26/1993	1530	1.00	1530	600	12.5392%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7487354.88
5573540	9/10/1993	1530	1.00	1530	600	12.5392%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7487354.88
5573540	10/14/2014	1530	1.00	1530	600	12.5392%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7487354.88
5573540	5/28/2000	1520	1.00	1520	604	12.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7438417.92
5573540	6/14/1996	1520	1.00	1520	604	12.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7438417.92
5573540	6/26/2000	1520	1.00	1520	604	12.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7438417.92
5573540	10/18/1990	1520	1.00	1520	604	12.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7438417.92
5573540	5/18/2010	1510	1.00	1510	608	12.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7389480.96
5573540	8/29/2006	1510	1.00	1510	608	12.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7389480.96
5573540	10/18/2014	1510	1.00	1510	608	12.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7389480.96
5573540	5/21/2008	1500	1.00	1500	611	12.7691%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340544
5573540	6/17/1990	1500	1.00	1500	611	12.7691%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340544
5573540	7/2/1990	1500	1.00	1500	611	12.7691%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340544
5573540	8/26/2002	1500	1.00	1500	611	12.7691%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340544
5573540	10/9/1993	1500	1.00	1500	611	12.7691%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340544
5573540	5/1/2013	1490	1.00	1490	616	12.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7291607.04
5573540	6/14/1990	1490	1.00	1490	616	12.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7291607.04
5573540	6/23/2000	1490	1.00	1490	616	12.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7291607.04
5573540	6/26/2014	1490	1.00	1490	616	12.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7291607.04
5573540	7/8/1998	1490	1.00	1490	616	12.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7291607.04
5573540	5/12/2015	1480	1.00	1480	621	12.9781%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7242670.08
5573540	7/2/1998	1480	1.00	1480	621	12.9781%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7242670.08
5573540	10/17/2014	1480	1.00	1480	621	12.9781%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7242670.08
5573540	5/23/1998	1470	1.00	1470	624	13.0408%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7193733.12
5573540	6/14/2005	1460	1.00	1460	625	13.0617%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7144796.16
5573540	10/6/2014	1460	1.00	1460	625	13.0617%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7144796.16
5573540	5/25/2009	1450	1.00	1450	627	13.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7095859.2
5573540	6/11/1990	1450	1.00	1450	627	13.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7095859.2
5573540	7/25/1992	1450	1.00	1450	627	13.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7095859.2
5573540	8/2/1992	1450	1.00	1450	627	13.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7095859.2
5573540	5/6/1991	1440	1.00	1440	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7046922.24
5573540	5/12/2003	1440	1.00	1440	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7046922.24
5573540	5/13/2010	1440	1.00	1440	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7046922.24
5573540	6/25/2000	1440	1.00	1440	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7046922.24
5573540	6/1/2015	1440	1.00	1440	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7046922.24
5573540	7/23/1990	1440	1.00	1440	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7046922.24
5573540	7/10/1993	1440	1.00	1440	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7046922.24
5573540	7/13/2003	1440	1.00	1440	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7046922.24
5573540	7/8/2014	1440	1.00	1440	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7046922.24
5573540	5/16/1998	1430	1.00	1430	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6997985.28
5573540	5/10/2009	1430	1.00	1430	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6997985.28
5573540	5/24/2010	1430	1.00	1430	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6997985.28
5573540	6/7/1993	1430	1.00	1430	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6997985.28
5573540	6/11/1995	1430	1.00	1430	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6997985.28

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/25/2002	1430	1.00	1430	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6997985.28
5573540	5/19/2014	1420	1.00	1420	646	13.5005%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6949048.32
5573540	6/24/2009	1420	1.00	1420	646	13.5005%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6949048.32
5573540	6/11/2015	1420	1.00	1420	646	13.5005%	Fecal_coliform	50	cfu/100mL	200	283.2	1737262.08	6949048.32
5573540	7/24/2008	1420	1.00	1420	646	13.5005%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6949048.32
5573540	6/9/2001	1410	1.00	1410	650	13.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6900111.36
5573540	7/26/1990	1410	1.00	1410	650	13.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6900111.36
5573540	10/19/2014	1410	1.00	1410	650	13.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6900111.36
5573540	5/24/2002	1400	1.00	1400	653	13.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851174.4
5573540	6/3/1999	1400	1.00	1400	653	13.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851174.4
5573540	6/10/2001	1400	1.00	1400	653	13.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851174.4
5573540	6/18/2009	1400	1.00	1400	653	13.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851174.4
5573540	6/2/2015	1400	1.00	1400	653	13.6468%	Fecal_coliform	38	cfu/100mL	200	283.2	1301723.136	6851174.4
5573540	9/4/1993	1400	1.00	1400	653	13.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851174.4
5573540	5/16/2011	1390	1.00	1390	659	13.7722%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6802237.44
5573540	6/11/2004	1390	1.00	1390	659	13.7722%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6802237.44
5573540	5/12/1990	1380	1.00	1380	661	13.8140%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6753300.48
5573540	5/8/1993	1380	1.00	1380	661	13.8140%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6753300.48
5573540	6/27/2014	1380	1.00	1380	661	13.8140%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6753300.48
5573540	7/9/1998	1380	1.00	1380	661	13.8140%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6753300.48
5573540	5/23/2004	1370	1.00	1370	665	13.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6704363.52
5573540	5/3/2007	1370	1.00	1370	665	13.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6704363.52
5573540	6/7/1992	1370	1.00	1370	665	13.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6704363.52
5573540	8/30/2004	1370	1.00	1370	665	13.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6704363.52
5573540	6/13/1994	1360	1.00	1360	669	13.9812%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6655426.56
5573540	5/4/1993	1350	1.00	1350	670	14.0021%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6606489.6
5573540	5/22/2008	1350	1.00	1350	670	14.0021%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6606489.6
5573540	6/22/2004	1350	1.00	1350	670	14.0021%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6606489.6
5573540	6/5/2015	1350	1.00	1350	670	14.0021%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6606489.6
5573540	5/28/1998	1340	1.00	1340	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6557552.64
5573540	5/14/2010	1340	1.00	1340	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6557552.64
5573540	6/10/1990	1340	1.00	1340	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6557552.64
5573540	6/1/2004	1340	1.00	1340	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6557552.64
5573540	6/18/2008	1340	1.00	1340	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6557552.64
5573540	6/3/2015	1340	1.00	1340	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6557552.64
5573540	5/11/2009	1330	1.00	1330	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6508615.68
5573540	6/14/1997	1330	1.00	1330	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6508615.68
5573540	6/12/2003	1330	1.00	1330	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6508615.68
5573540	6/8/2013	1330	1.00	1330	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6508615.68
5573540	6/4/2015	1330	1.00	1330	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6508615.68
5573540	6/9/2015	1330	1.00	1330	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6508615.68
5573540	7/11/2004	1330	1.00	1330	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6508615.68
5573540	7/18/2008	1330	1.00	1330	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6508615.68
5573540	8/14/1999	1330	1.00	1330	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6508615.68
5573540	5/7/1993	1320	1.00	1320	689	14.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6459678.72
5573540	6/7/1999	1320	1.00	1320	689	14.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6459678.72

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/23/2004	1320	1.00	1320	689	14.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6459678.72
5573540	7/3/1998	1320	1.00	1320	689	14.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6459678.72
5573540	9/23/2008	1320	1.00	1320	689	14.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6459678.72
5573540	5/8/1991	1310	1.00	1310	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6410741.76
5573540	5/17/2004	1310	1.00	1310	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6410741.76
5573540	6/6/1993	1310	1.00	1310	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6410741.76
5573540	6/9/1999	1310	1.00	1310	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6410741.76
5573540	6/7/2011	1310	1.00	1310	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6410741.76
5573540	6/12/2011	1310	1.00	1310	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6410741.76
5573540	10/26/2001	1310	1.00	1310	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6410741.76
5573540	5/14/2003	1300	1.00	1300	701	14.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361804.8
5573540	6/2/2006	1300	1.00	1300	701	14.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361804.8
5573540	7/20/1993	1300	1.00	1300	701	14.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361804.8
5573540	10/4/1993	1300	1.00	1300	701	14.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361804.8
5573540	10/7/2014	1300	1.00	1300	701	14.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361804.8
5573540	5/19/2011	1290	1.00	1290	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6312867.84
5573540	6/18/1990	1290	1.00	1290	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6312867.84
5573540	6/5/1993	1290	1.00	1290	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6312867.84
5573540	6/9/1995	1290	1.00	1290	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6312867.84
5573540	6/15/1996	1290	1.00	1290	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6312867.84
5573540	6/13/1997	1290	1.00	1290	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6312867.84
5573540	6/26/1999	1290	1.00	1290	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6312867.84
5573540	7/24/1990	1290	1.00	1290	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6312867.84
5573540	7/19/1993	1290	1.00	1290	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6312867.84
5573540	5/9/1993	1280	1.00	1280	715	14.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6263930.88
5573540	6/7/2014	1280	1.00	1280	715	14.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6263930.88
5573540	7/26/2010	1280	1.00	1280	715	14.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6263930.88
5573540	5/6/1993	1270	1.00	1270	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6214993.92
5573540	5/21/1996	1270	1.00	1270	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6214993.92
5573540	5/12/2010	1270	1.00	1270	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6214993.92
5573540	5/13/2014	1270	1.00	1270	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6214993.92
5573540	6/12/1990	1270	1.00	1270	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6214993.92
5573540	6/2/2004	1270	1.00	1270	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6214993.92
5573540	6/9/2010	1270	1.00	1270	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6214993.92
5573540	6/30/2010	1270	1.00	1270	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6214993.92
5573540	7/1/1997	1270	1.00	1270	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6214993.92
5573540	7/11/2003	1270	1.00	1270	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6214993.92
5573540	8/31/2009	1270	1.00	1270	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6214993.92
5573540	9/3/2003	1270	1.00	1270	718	15.0052%	Fecal_coliform	1200	cfu/100mL	200	283.2	37289963.52	6214993.92
5573540	10/27/2008	1270	1.00	1270	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6214993.92
5573540	10/8/2014	1270	1.00	1270	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6214993.92
5573540	5/13/2015	1260	1.00	1260	732	15.2978%	Fecal_coliform	99	cfu/100mL	200	283.2	3052198.195	6166056.96
5573540	6/22/2000	1260	1.00	1260	732	15.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6166056.96
5573540	7/11/2013	1260	1.00	1260	732	15.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6166056.96
5573540	9/17/2014	1260	1.00	1260	732	15.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6166056.96
5573540	5/15/1994	1250	1.00	1250	736	15.3814%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6117120

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/16/1996	1250	1.00	1250	736	15.3814%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6117120
5573540	6/20/2002	1250	1.00	1250	736	15.3814%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6117120
5573540	5/21/2014	1240	1.00	1240	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6068183.04
5573540	6/22/1996	1240	1.00	1240	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6068183.04
5573540	6/8/1999	1240	1.00	1240	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6068183.04
5573540	6/27/2000	1240	1.00	1240	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6068183.04
5573540	6/29/2011	1240	1.00	1240	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6068183.04
5573540	7/14/1993	1240	1.00	1240	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6068183.04
5573540	7/12/2003	1240	1.00	1240	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6068183.04
5573540	8/28/2002	1240	1.00	1240	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6068183.04
5573540	5/5/1991	1230	1.00	1230	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6019246.08
5573540	5/14/1991	1230	1.00	1230	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6019246.08
5573540	5/16/2003	1230	1.00	1230	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6019246.08
5573540	7/27/1990	1230	1.00	1230	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6019246.08
5573540	7/18/1993	1230	1.00	1230	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6019246.08
5573540	8/31/2004	1230	1.00	1230	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6019246.08
5573540	5/7/1991	1220	1.00	1220	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5970309.12
5573540	5/3/1993	1220	1.00	1220	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5970309.12
5573540	5/13/1994	1220	1.00	1220	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5970309.12
5573540	5/17/1998	1220	1.00	1220	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5970309.12
5573540	6/2/1997	1220	1.00	1220	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5970309.12
5573540	6/17/1999	1220	1.00	1220	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5970309.12
5573540	6/17/2011	1220	1.00	1220	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5970309.12
5573540	6/25/2013	1220	1.00	1220	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5970309.12
5573540	6/6/2014	1220	1.00	1220	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5970309.12
5573540	7/7/1998	1220	1.00	1220	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5970309.12
5573540	5/24/1996	1210	1.00	1210	763	15.9457%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5921372.16
5573540	5/29/1998	1210	1.00	1210	763	15.9457%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5921372.16
5573540	5/25/2008	1210	1.00	1210	763	15.9457%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5921372.16
5573540	5/6/2011	1210	1.00	1210	763	15.9457%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5921372.16
5573540	5/12/2009	1200	1.00	1200	767	16.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872435.2
5573540	5/27/2013	1200	1.00	1200	767	16.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872435.2
5573540	7/3/2013	1200	1.00	1200	767	16.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872435.2
5573540	8/13/1993	1200	1.00	1200	767	16.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872435.2
5573540	8/23/1993	1200	1.00	1200	767	16.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872435.2
5573540	5/16/1994	1190	1.00	1190	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5823498.24
5573540	5/22/1996	1190	1.00	1190	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5823498.24
5573540	5/25/2004	1190	1.00	1190	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5823498.24
5573540	6/13/1990	1190	1.00	1190	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5823498.24
5573540	6/1/1997	1190	1.00	1190	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5823498.24
5573540	6/10/2015	1190	1.00	1190	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5823498.24
5573540	7/10/2003	1190	1.00	1190	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5823498.24
5573540	7/20/2010	1190	1.00	1190	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5823498.24
5573540	10/25/2008	1190	1.00	1190	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5823498.24
5573540	5/23/1996	1180	1.00	1180	781	16.3218%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5774561.28
5573540	5/31/1997	1180	1.00	1180	781	16.3218%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5774561.28

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/31/2000	1180	1.00	1180	781	16.3218%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5774561.28
5573540	5/8/2013	1180	1.00	1180	781	16.3218%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5774561.28
5573540	7/10/1998	1180	1.00	1180	781	16.3218%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5774561.28
5573540	5/31/1990	1170	1.00	1170	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5725624.32
5573540	5/31/2008	1170	1.00	1170	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5725624.32
5573540	5/25/2011	1170	1.00	1170	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5725624.32
5573540	6/12/1997	1170	1.00	1170	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5725624.32
5573540	7/16/1992	1170	1.00	1170	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5725624.32
5573540	7/5/2015	1170	1.00	1170	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5725624.32
5573540	10/26/2008	1170	1.00	1170	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5725624.32
5573540	5/27/1991	1160	1.00	1160	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5676687.36
5573540	5/18/1998	1160	1.00	1160	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5676687.36
5573540	5/26/2009	1160	1.00	1160	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5676687.36
5573540	5/20/2014	1160	1.00	1160	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5676687.36
5573540	6/15/1997	1160	1.00	1160	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5676687.36
5573540	6/16/1997	1160	1.00	1160	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5676687.36
5573540	6/19/2003	1160	1.00	1160	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5676687.36
5573540	7/18/2015	1160	1.00	1160	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5676687.36
5573540	10/28/2008	1160	1.00	1160	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5676687.36
5573540	5/20/2011	1150	1.00	1150	802	16.7607%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5627750.4
5573540	8/3/1992	1150	1.00	1150	802	16.7607%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5627750.4
5573540	9/4/2003	1150	1.00	1150	802	16.7607%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5627750.4
5573540	5/8/1995	1140	1.00	1140	805	16.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5578813.44
5573540	5/17/2011	1140	1.00	1140	805	16.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5578813.44
5573540	6/14/1993	1140	1.00	1140	805	16.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5578813.44
5573540	6/24/1995	1140	1.00	1140	805	16.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5578813.44
5573540	6/25/2009	1130	1.00	1130	809	16.9070%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5529876.48
5573540	7/6/2009	1130	1.00	1130	809	16.9070%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5529876.48
5573540	5/6/1997	1120	1.00	1120	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5480939.52
5573540	5/26/2002	1120	1.00	1120	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5480939.52
5573540	5/30/2002	1120	1.00	1120	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5480939.52
5573540	7/7/1992	1120	1.00	1120	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5480939.52
5573540	7/11/1993	1120	1.00	1120	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5480939.52
5573540	7/7/2000	1120	1.00	1120	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5480939.52
5573540	7/23/2008	1120	1.00	1120	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5480939.52
5573540	7/1/2014	1120	1.00	1120	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5480939.52
5573540	8/20/1993	1120	1.00	1120	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5480939.52
5573540	9/2/2003	1120	1.00	1120	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5480939.52
5573540	5/10/1993	1110	1.00	1110	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5432002.56
5573540	6/11/1997	1110	1.00	1110	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5432002.56
5573540	6/12/1999	1110	1.00	1110	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5432002.56
5573540	6/1/2002	1110	1.00	1110	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5432002.56
5573540	6/6/2015	1110	1.00	1110	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5432002.56
5573540	7/8/1992	1110	1.00	1110	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5432002.56
5573540	7/5/2009	1110	1.00	1110	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5432002.56
5573540	7/1/2010	1110	1.00	1110	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5432002.56

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/13/1999	1110	1.00	1110	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5432002.56
5573540	5/11/1993	1100	1.00	1100	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383065.6
5573540	5/21/1998	1100	1.00	1100	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383065.6
5573540	5/26/2008	1100	1.00	1100	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383065.6
5573540	5/17/2010	1100	1.00	1100	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383065.6
5573540	5/18/2011	1100	1.00	1100	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383065.6
5573540	6/18/1999	1100	1.00	1100	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383065.6
5573540	7/12/2000	1100	1.00	1100	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383065.6
5573540	7/10/2013	1100	1.00	1100	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383065.6
5573540	10/28/2004	1100	1.00	1100	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383065.6
5573540	5/25/2002	1090	1.00	1090	839	17.5340%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5334128.64
5573540	6/10/2011	1090	1.00	1090	839	17.5340%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5334128.64
5573540	6/20/2011	1090	1.00	1090	839	17.5340%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5334128.64
5573540	5/16/1999	1080	1.00	1080	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5285191.68
5573540	5/2/2013	1080	1.00	1080	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5285191.68
5573540	6/8/1997	1080	1.00	1080	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5285191.68
5573540	7/15/1992	1080	1.00	1080	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5285191.68
5573540	7/17/2003	1080	1.00	1080	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5285191.68
5573540	7/8/2015	1080	1.00	1080	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5285191.68
5573540	5/3/1996	1070	1.00	1070	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5236254.72
5573540	5/7/2011	1070	1.00	1070	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5236254.72
5573540	5/8/2011	1070	1.00	1070	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5236254.72
5573540	5/14/2015	1070	1.00	1070	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5236254.72
5573540	6/4/1993	1070	1.00	1070	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5236254.72
5573540	6/21/1996	1070	1.00	1070	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5236254.72
5573540	6/17/1997	1070	1.00	1070	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5236254.72
5573540	6/18/2003	1070	1.00	1070	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5236254.72
5573540	7/13/2013	1070	1.00	1070	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5236254.72
5573540	8/20/2006	1070	1.00	1070	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5236254.72
5573540	5/1/1995	1060	1.00	1060	858	17.9310%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5187317.76
5573540	5/27/2008	1060	1.00	1060	858	17.9310%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5187317.76
5573540	6/9/1997	1060	1.00	1060	858	17.9310%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5187317.76
5573540	6/10/1997	1060	1.00	1060	858	17.9310%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5187317.76
5573540	9/1/2004	1060	1.00	1060	858	17.9310%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5187317.76
5573540	5/27/2002	1050	1.00	1050	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5138380.8
5573540	5/16/2015	1050	1.00	1050	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5138380.8
5573540	6/7/1997	1050	1.00	1050	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5138380.8
5573540	6/16/2008	1050	1.00	1050	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5138380.8
5573540	6/15/2014	1050	1.00	1050	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5138380.8
5573540	9/15/2014	1050	1.00	1050	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5138380.8
5573540	10/19/1990	1050	1.00	1050	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5138380.8
5573540	5/28/1991	1040	1.00	1040	870	18.1818%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5089443.84
5573540	5/30/1997	1040	1.00	1040	870	18.1818%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5089443.84
5573540	5/24/2014	1040	1.00	1040	870	18.1818%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5089443.84
5573540	10/27/2001	1040	1.00	1040	870	18.1818%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5089443.84
5573540	5/5/1997	1030	1.00	1030	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5040506.88

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/8/1990	1030	1.00	1030	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5040506.88
5573540	6/10/1998	1030	1.00	1030	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5040506.88
5573540	6/12/2001	1030	1.00	1030	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5040506.88
5573540	7/8/2000	1030	1.00	1030	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5040506.88
5573540	10/30/2004	1030	1.00	1030	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5040506.88
5573540	5/9/1992	1020	1.00	1020	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4991569.92
5573540	5/7/1996	1020	1.00	1020	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4991569.92
5573540	5/13/2013	1020	1.00	1020	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4991569.92
5573540	5/14/2014	1020	1.00	1020	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4991569.92
5573540	6/9/1990	1020	1.00	1020	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4991569.92
5573540	6/30/1997	1020	1.00	1020	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4991569.92
5573540	5/15/1991	1010	1.00	1010	886	18.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4942632.96
5573540	6/27/1995	1010	1.00	1010	886	18.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4942632.96
5573540	6/4/1999	1010	1.00	1010	886	18.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4942632.96
5573540	6/28/2000	1010	1.00	1010	886	18.5162%	Fecal_coliform	4200	cfu/100mL	200	283.2	103795292.2	4942632.96
5573540	10/20/2014	1010	1.00	1010	886	18.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4942632.96
5573540	5/1/1991	1000	1.00	1000	891	18.6207%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4893696
5573540	6/16/1995	996	1.00	996	892	18.6416%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4874121.216
5573540	5/7/2003	995	1.00	995	893	18.6625%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4869227.52
5573540	6/17/2008	993	1.00	993	894	18.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4859440.128
5573540	6/21/2011	991	1.00	991	895	18.7043%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4849652.736
5573540	6/4/1990	989	1.00	989	896	18.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4839865.344
5573540	6/23/1993	985	1.00	985	897	18.7461%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4820290.56
5573540	6/23/1995	984	1.00	984	898	18.7670%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4815396.864
5573540	7/12/1993	984	1.00	984	898	18.7670%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4815396.864
5573540	5/25/1996	982	1.00	982	900	18.8088%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4805609.472
5573540	6/24/1993	982	1.00	982	900	18.8088%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4805609.472
5573540	6/3/2009	980	1.00	980	902	18.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4795822.08
5573540	5/22/2014	979	1.00	979	903	18.8715%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4790928.384
5573540	6/28/2014	979	1.00	979	903	18.8715%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4790928.384
5573540	7/21/1993	979	1.00	979	903	18.8715%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4790928.384
5573540	6/19/1999	978	1.00	978	906	18.9342%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4786034.688
5573540	6/26/1995	977	1.00	977	907	18.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4781140.992
5573540	5/31/2015	976	1.00	976	908	18.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4776247.296
5573540	5/15/2015	975	1.00	975	909	18.9969%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4771353.6
5573540	6/24/2013	975	1.00	975	909	18.9969%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4771353.6
5573540	10/22/1990	975	1.00	975	909	18.9969%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4771353.6
5573540	5/30/2000	973	1.00	973	912	19.0596%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4761566.208
5573540	5/30/1998	972	1.00	972	913	19.0805%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4756672.512
5573540	10/9/2014	970	1.00	970	914	19.1014%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4746885.12
5573540	5/24/2004	969	1.00	969	915	19.1223%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4741991.424
5573540	5/16/2013	968	1.00	968	916	19.1432%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4737097.728
5573540	6/15/2005	968	1.00	968	916	19.1432%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4737097.728
5573540	6/13/2001	966	1.00	966	918	19.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4727310.336
5573540	5/20/1998	962	1.00	962	919	19.2059%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4707735.552
5573540	5/28/1997	961	1.00	961	920	19.2268%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4702841.856

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/4/2009	960	1.00	960	921	19.2476%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4697948.16
5573540	8/14/1993	958	1.00	958	922	19.2685%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4688160.768
5573540	6/20/1996	956	1.00	956	923	19.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4678373.376
5573540	6/8/2015	956	1.00	956	923	19.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4678373.376
5573540	6/22/2011	955	1.00	955	925	19.3312%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4673479.68
5573540	5/17/2003	954	1.00	954	926	19.3521%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4668585.984
5573540	5/23/2014	953	1.00	953	927	19.3730%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4663692.288
5573540	6/22/1993	953	1.00	953	927	19.3730%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4663692.288
5573540	5/16/2010	950	1.00	950	929	19.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4649011.2
5573540	6/7/2009	950	1.00	950	929	19.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4649011.2
5573540	5/31/2014	949	1.00	949	931	19.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4644117.504
5573540	5/27/2010	947	1.00	947	932	19.4775%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4634330.112
5573540	6/6/2009	947	1.00	947	932	19.4775%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4634330.112
5573540	6/5/2009	942	1.00	942	934	19.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4609861.632
5573540	5/14/1999	941	1.00	941	935	19.5402%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4604967.936
5573540	6/21/1993	940	1.00	940	936	19.5611%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4600074.24
5573540	7/19/2008	940	1.00	940	936	19.5611%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4600074.24
5573540	6/11/1993	939	1.00	939	938	19.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4595180.544
5573540	10/13/2009	939	1.00	939	938	19.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4595180.544
5573540	6/27/1999	935	1.00	935	940	19.6447%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4575605.76
5573540	9/18/2014	934	1.00	934	941	19.6656%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4570712.064
5573540	5/17/1993	932	1.00	932	942	19.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4560924.672
5573540	6/5/1997	930	1.00	930	943	19.7074%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4551137.28
5573540	10/30/2001	930	1.00	930	943	19.7074%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4551137.28
5573540	5/6/2002	927	1.00	927	945	19.7492%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4536456.192
5573540	5/29/2009	927	1.00	927	945	19.7492%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4536456.192
5573540	6/23/2011	924	1.00	924	947	19.7910%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4521775.104
5573540	6/2/2002	923	1.00	923	948	19.8119%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4516881.408
5573540	5/30/2009	922	1.00	922	949	19.8328%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4511987.712
5573540	8/1/1993	920	1.00	920	950	19.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4502200.32
5573540	6/7/1990	919	1.00	919	951	19.8746%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4497306.624
5573540	6/12/2009	919	1.00	919	951	19.8746%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4497306.624
5573540	7/13/2004	917	1.00	917	953	19.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4487519.232
5573540	6/13/1993	913	1.00	913	954	19.9373%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4467944.448
5573540	6/1/2000	913	1.00	913	954	19.9373%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4467944.448
5573540	7/19/2015	912	1.00	912	956	19.9791%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4463050.752
5573540	5/13/1999	911	1.00	911	957	20.0000%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4458157.056
5573540	5/9/2011	910	1.00	910	958	20.0209%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4453263.36
5573540	6/3/1990	909	1.00	909	959	20.0418%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4448369.664
5573540	6/21/2000	909	1.00	909	959	20.0418%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4448369.664
5573540	7/21/2003	908	1.00	908	961	20.0836%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4443475.968
5573540	6/9/1992	905	1.00	905	962	20.1045%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4428794.88
5573540	9/22/1993	905	1.00	905	962	20.1045%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4428794.88
5573540	10/14/2009	904	1.00	904	964	20.1463%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4423901.184
5573540	7/27/1996	903	1.00	903	965	20.1672%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4419007.488
5573540	6/6/1995	902	1.00	902	966	20.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4414113.792

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/17/1996	902	1.00	902	966	20.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4414113.792
5573540	7/11/1998	902	1.00	902	966	20.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4414113.792
5573540	5/1/1999	901	1.00	901	969	20.2508%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4409220.096
5573540	10/20/1990	900	1.00	900	970	20.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4404326.4
5573540	6/26/2009	899	1.00	899	971	20.2926%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4399432.704
5573540	7/10/2004	895	1.00	895	972	20.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4379857.92
5573540	9/2/2009	895	1.00	895	972	20.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4379857.92
5573540	6/19/1996	894	1.00	894	974	20.3553%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4374964.224
5573540	5/4/2006	893	1.00	893	975	20.3762%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4370070.528
5573540	5/4/1997	892	1.00	892	976	20.3971%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4365176.832
5573540	6/9/1998	891	1.00	891	977	20.4180%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4360283.136
5573540	8/28/2006	891	1.00	891	977	20.4180%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4360283.136
5573540	10/5/1993	891	1.00	891	977	20.4180%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4360283.136
5573540	10/18/2006	889	1.00	889	980	20.4807%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4350495.744
5573540	6/8/2010	888	1.00	888	981	20.5016%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4345602.048
5573540	10/29/2004	888	1.00	888	981	20.5016%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4345602.048
5573540	5/31/2009	887	1.00	887	983	20.5434%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4340708.352
5573540	5/7/1997	885	1.00	885	984	20.5643%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4330920.96
5573540	5/29/2002	885	1.00	885	984	20.5643%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4330920.96
5573540	5/31/2002	883	1.00	883	986	20.6061%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4321133.568
5573540	5/17/2015	882	1.00	882	987	20.6270%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4316239.872
5573540	6/25/1995	880	1.00	880	988	20.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4306452.48
5573540	5/18/2003	876	1.00	876	989	20.6688%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4286877.696
5573540	5/27/2009	872	1.00	872	990	20.6897%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4267302.912
5573540	6/1/1998	868	1.00	868	991	20.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4247728.128
5573540	6/27/2009	868	1.00	868	991	20.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4247728.128
5573540	7/25/1993	868	1.00	868	991	20.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4247728.128
5573540	7/4/2013	868	1.00	868	991	20.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4247728.128
5573540	5/8/2003	867	1.00	867	995	20.7941%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4242834.432
5573540	6/28/1995	867	1.00	867	995	20.7941%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4242834.432
5573540	5/15/1999	866	1.00	866	997	20.8359%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4237940.736
5573540	5/6/1999	865	1.00	865	998	20.8568%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4233047.04
5573540	5/21/2013	865	1.00	865	998	20.8568%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4233047.04
5573540	8/30/2009	863	1.00	863	1000	20.8986%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4223259.648
5573540	9/25/2008	863	1.00	863	1000	20.8986%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4223259.648
5573540	6/11/2002	861	1.00	861	1002	20.9404%	Fecal_coliform	220	cfu/100mL	200	283.2	4634819.482	4213472.256
5573540	6/25/1999	860	1.00	860	1003	20.9613%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4208578.56
5573540	5/17/1994	857	1.00	857	1004	20.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4193897.472
5573540	6/15/2000	857	1.00	857	1004	20.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4193897.472
5573540	7/13/1993	856	1.00	856	1006	21.0240%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4189003.776
5573540	7/5/1998	856	1.00	856	1006	21.0240%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4189003.776
5573540	6/14/2011	855	1.00	855	1008	21.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4184110.08
5573540	7/22/2003	855	1.00	855	1008	21.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4184110.08
5573540	5/15/2010	854	1.00	854	1010	21.1076%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4179216.384
5573540	10/21/2006	854	1.00	854	1010	21.1076%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4179216.384
5573540	5/14/2011	853	1.00	853	1012	21.1494%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4174322.688

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/23/2013	853	1.00	853	1012	21.1494%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4174322.688
5573540	7/23/1993	851	1.00	851	1014	21.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4164535.296
5573540	5/28/2002	849	1.00	849	1015	21.2121%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4154747.904
5573540	6/6/2002	848	1.00	848	1016	21.2330%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4149854.208
5573540	6/9/1991	847	1.00	847	1017	21.2539%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4144960.512
5573540	6/1/1990	845	1.00	845	1018	21.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4135173.12
5573540	8/22/1993	845	1.00	845	1018	21.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4135173.12
5573540	8/24/1993	843	1.00	843	1020	21.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4125385.728
5573540	7/6/1998	842	1.00	842	1021	21.3375%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4120492.032
5573540	5/19/1994	841	1.00	841	1022	21.3584%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4115598.336
5573540	7/14/2006	839	1.00	839	1023	21.3793%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4105810.944
5573540	6/28/1999	838	1.00	838	1024	21.4002%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4100917.248
5573540	5/2/1999	835	1.00	835	1025	21.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4086236.16
5573540	5/5/2008	835	1.00	835	1025	21.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4086236.16
5573540	6/8/2009	835	1.00	835	1025	21.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4086236.16
5573540	5/28/2010	834	1.00	834	1028	21.4838%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4081342.464
5573540	7/2/2010	834	1.00	834	1028	21.4838%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4081342.464
5573540	5/26/1991	833	1.00	833	1030	21.5256%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4076448.768
5573540	5/25/1994	830	1.00	830	1031	21.5465%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4061767.68
5573540	9/21/1993	830	1.00	830	1031	21.5465%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4061767.68
5573540	10/18/2009	829	1.00	829	1033	21.5883%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4056873.984
5573540	5/21/2011	828	1.00	828	1034	21.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4051980.288
5573540	6/11/2009	828	1.00	828	1034	21.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4051980.288
5573540	7/14/2013	828	1.00	828	1034	21.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4051980.288
5573540	5/3/1990	827	1.00	827	1037	21.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4047086.592
5573540	6/18/1996	827	1.00	827	1037	21.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4047086.592
5573540	6/24/2004	826	1.00	826	1039	21.7137%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4042192.896
5573540	6/11/2001	822	1.00	822	1040	21.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4022618.112
5573540	6/6/1997	820	1.00	820	1041	21.7555%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4012830.72
5573540	5/22/2013	818	1.00	818	1042	21.7764%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4003043.328
5573540	5/4/1991	814	1.00	814	1043	21.7973%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3983468.544
5573540	6/8/2011	814	1.00	814	1043	21.7973%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3983468.544
5573540	10/21/2014	814	1.00	814	1043	21.7973%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3983468.544
5573540	5/3/1995	813	1.00	813	1046	21.8600%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3978574.848
5573540	6/18/1997	813	1.00	813	1046	21.8600%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3978574.848
5573540	5/11/2010	812	1.00	812	1048	21.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3973681.152
5573540	6/6/1990	812	1.00	812	1048	21.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3973681.152
5573540	7/1/2011	811	1.00	811	1050	21.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3968787.456
5573540	6/3/2010	810	1.00	810	1051	21.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3963893.76
5573540	5/3/2006	809	1.00	809	1052	21.9854%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3959000.064
5573540	6/26/1993	809	1.00	809	1052	21.9854%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3959000.064
5573540	6/7/2002	809	1.00	809	1052	21.9854%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3959000.064
5573540	10/7/2000	804	1.00	804	1055	22.0481%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3934531.584
5573540	5/29/1997	802	1.00	802	1056	22.0690%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3924744.192
5573540	5/8/2012	801	1.00	801	1057	22.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3919850.496
5573540	5/25/2010	800	1.00	800	1058	22.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3914956.8

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/30/2011	800	1.00	800	1058	22.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3914956.8
5573540	7/1/2007	798	1.00	798	1060	22.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3905169.408
5573540	5/6/2008	797	1.00	797	1061	22.1735%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3900275.712
5573540	5/6/2003	796	1.00	796	1062	22.1944%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3895382.016
5573540	6/1/1993	795	1.00	795	1063	22.2153%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3890488.32
5573540	8/1/2006	795	1.00	795	1063	22.2153%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3890488.32
5573540	6/28/2009	793	1.00	793	1065	22.2571%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3880700.928
5573540	6/19/2008	789	1.00	789	1066	22.2780%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3861126.144
5573540	6/2/2000	788	1.00	788	1067	22.2989%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3856232.448
5573540	6/8/2002	788	1.00	788	1067	22.2989%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3856232.448
5573540	6/2/1990	787	1.00	787	1069	22.3406%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3851338.752
5573540	6/2/2010	787	1.00	787	1069	22.3406%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3851338.752
5573540	6/29/1999	786	1.00	786	1071	22.3824%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3846445.056
5573540	7/13/2000	786	1.00	786	1071	22.3824%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3846445.056
5573540	6/30/2007	785	1.00	785	1073	22.4242%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3841551.36
5573540	7/16/2004	784	1.00	784	1074	22.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3836657.664
5573540	5/22/1998	782	1.00	782	1075	22.4660%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3826870.272
5573540	7/19/1992	782	1.00	782	1075	22.4660%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3826870.272
5573540	5/12/1993	780	1.00	780	1077	22.5078%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3817082.88
5573540	10/20/2001	780	1.00	780	1077	22.5078%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3817082.88
5573540	5/1/2006	779	1.00	779	1079	22.5496%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3812189.184
5573540	7/22/1993	779	1.00	779	1079	22.5496%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3812189.184
5573540	5/31/2010	776	1.00	776	1081	22.5914%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3797508.096
5573540	7/15/2004	775	1.00	775	1082	22.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3792614.4
5573540	5/24/2013	772	1.00	772	1083	22.6332%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3777933.312
5573540	6/9/2013	772	1.00	772	1083	22.6332%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3777933.312
5573540	7/9/2014	772	1.00	772	1083	22.6332%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3777933.312
5573540	5/2/2006	771	1.00	771	1086	22.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3773039.616
5573540	5/26/1994	770	1.00	770	1087	22.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3768145.92
5573540	5/30/2010	770	1.00	770	1087	22.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3768145.92
5573540	6/3/1997	770	1.00	770	1087	22.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3768145.92
5573540	7/12/2013	769	1.00	769	1090	22.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3763252.224
5573540	5/28/2009	765	1.00	765	1091	22.8004%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3743677.44
5573540	6/11/1999	763	1.00	763	1092	22.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3733890.048
5573540	6/13/2009	763	1.00	763	1092	22.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3733890.048
5573540	6/10/2004	762	1.00	762	1094	22.8631%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3728996.352
5573540	6/24/2011	762	1.00	762	1094	22.8631%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3728996.352
5573540	5/28/2008	759	1.00	759	1096	22.9049%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3714315.264
5573540	6/9/2002	759	1.00	759	1096	22.9049%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3714315.264
5573540	6/5/2010	758	1.00	758	1098	22.9467%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3709421.568
5573540	9/24/2008	758	1.00	758	1098	22.9467%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3709421.568
5573540	7/11/1990	757	1.00	757	1100	22.9885%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3704527.872
5573540	7/27/2010	756	1.00	756	1101	23.0094%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3699634.176
5573540	5/18/1993	753	1.00	753	1102	23.0303%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3684953.088
5573540	7/1/2008	753	1.00	753	1102	23.0303%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3684953.088
5573540	6/5/1998	751	1.00	751	1104	23.0721%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3675165.696

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/25/2007	751	1.00	751	1104	23.0721%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3675165.696
5573540	6/1/2010	750	1.00	750	1106	23.1139%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3670272
5573540	7/14/2004	750	1.00	750	1106	23.1139%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3670272
5573540	8/8/1995	750	1.00	750	1106	23.1139%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3670272
5573540	6/4/2010	749	1.00	749	1109	23.1766%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3665378.304
5573540	7/3/2008	749	1.00	749	1109	23.1766%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3665378.304
5573540	5/20/1994	748	1.00	748	1111	23.2184%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3660484.608
5573540	6/20/2003	748	1.00	748	1111	23.2184%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3660484.608
5573540	6/4/1991	747	1.00	747	1113	23.2602%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3655590.912
5573540	6/5/2001	747	1.00	747	1113	23.2602%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3655590.912
5573540	7/12/2004	747	1.00	747	1113	23.2602%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3655590.912
5573540	6/13/2011	746	1.00	746	1116	23.3229%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3650697.216
5573540	5/17/1999	745	1.00	745	1117	23.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3645803.52
5573540	5/26/2010	745	1.00	745	1117	23.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3645803.52
5573540	5/18/2015	745	1.00	745	1117	23.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3645803.52
5573540	6/25/1993	744	1.00	744	1120	23.4065%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3640909.824
5573540	5/5/2006	743	1.00	743	1121	23.4274%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3636016.128
5573540	5/8/2008	742	1.00	742	1122	23.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3631122.432
5573540	6/29/2014	742	1.00	742	1122	23.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3631122.432
5573540	8/29/2002	741	1.00	741	1124	23.4901%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3626228.736
5573540	10/21/1990	741	1.00	741	1124	23.4901%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3626228.736
5573540	7/22/2013	739	1.00	739	1126	23.5319%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3616441.344
5573540	5/31/1998	737	1.00	737	1127	23.5528%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3606653.952
5573540	6/6/2010	734	1.00	734	1128	23.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3591972.864
5573540	10/8/1993	734	1.00	734	1128	23.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3591972.864
5573540	6/30/1999	732	1.00	732	1130	23.6155%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3582185.472
5573540	5/25/2014	731	1.00	731	1131	23.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3577291.776
5573540	5/5/1999	730	1.00	730	1132	23.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3572398.08
5573540	5/30/2008	730	1.00	730	1132	23.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3572398.08
5573540	8/15/1993	730	1.00	730	1132	23.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3572398.08
5573540	5/15/2013	728	1.00	728	1135	23.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3562610.688
5573540	7/24/1993	728	1.00	728	1135	23.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3562610.688
5573540	5/21/1994	723	1.00	723	1137	23.7618%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3538142.208
5573540	6/4/1997	719	1.00	719	1138	23.7827%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3518567.424
5573540	6/10/2013	719	1.00	719	1138	23.7827%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3518567.424
5573540	7/20/2008	719	1.00	719	1138	23.7827%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3518567.424
5573540	6/7/2010	718	1.00	718	1141	23.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3513673.728
5573540	10/20/2006	718	1.00	718	1141	23.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3513673.728
5573540	5/3/1997	717	1.00	717	1143	23.8871%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3508780.032
5573540	5/21/2003	717	1.00	717	1143	23.8871%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3508780.032
5573540	6/12/1993	717	1.00	717	1143	23.8871%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3508780.032
5573540	5/9/2003	716	1.00	716	1146	23.9498%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3503886.336
5573540	8/4/1992	716	1.00	716	1146	23.9498%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3503886.336
5573540	6/24/2007	715	1.00	715	1148	23.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3498992.64
5573540	7/28/1996	715	1.00	715	1148	23.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3498992.64
5573540	5/13/1991	713	1.00	713	1150	24.0334%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3489205.248

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/22/2006	712	1.00	712	1151	24.0543%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3484311.552
5573540	6/21/2002	711	1.00	711	1152	24.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3479417.856
5573540	6/29/2007	711	1.00	711	1152	24.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3479417.856
5573540	9/14/1993	711	1.00	711	1152	24.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3479417.856
5573540	6/22/2002	710	1.00	710	1155	24.1379%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3474524.16
5573540	7/11/2000	710	1.00	710	1155	24.1379%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3474524.16
5573540	7/17/1992	709	1.00	709	1157	24.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3469630.464
5573540	5/10/2010	708	1.00	708	1158	24.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3464736.768
5573540	6/10/1999	708	1.00	708	1158	24.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3464736.768
5573540	7/26/1996	708	1.00	708	1158	24.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3464736.768
5573540	9/26/2008	708	1.00	708	1158	24.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3464736.768
5573540	6/5/1990	706	1.00	706	1162	24.2842%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3454949.376
5573540	7/10/2009	705	1.00	705	1163	24.3051%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3450055.68
5573540	7/2/2011	705	1.00	705	1163	24.3051%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3450055.68
5573540	6/8/2004	704	1.00	704	1165	24.3469%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3445161.984
5573540	8/25/1993	704	1.00	704	1165	24.3469%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3445161.984
5573540	7/18/1992	702	1.00	702	1167	24.3887%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3435374.592
5573540	7/23/2003	702	1.00	702	1167	24.3887%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3435374.592
5573540	5/24/1992	701	1.00	701	1169	24.4305%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3430480.896
5573540	5/2/2010	701	1.00	701	1169	24.4305%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3430480.896
5573540	6/1/2009	700	1.00	700	1171	24.4723%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3425587.2
5573540	6/14/2009	700	1.00	700	1171	24.4723%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3425587.2
5573540	6/1/2014	700	1.00	700	1171	24.4723%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3425587.2
5573540	6/25/2004	699	1.00	699	1174	24.5350%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3420693.504
5573540	6/23/2008	698	1.00	698	1175	24.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3415799.808
5573540	7/7/1990	698	1.00	698	1175	24.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3415799.808
5573540	5/15/2011	695	1.00	695	1177	24.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3401118.72
5573540	7/29/2008	694	1.00	694	1178	24.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3396225.024
5573540	6/4/1998	693	1.00	693	1179	24.6395%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3391331.328
5573540	8/5/1992	693	1.00	693	1179	24.6395%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3391331.328
5573540	5/15/2006	692	1.00	692	1181	24.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3386437.632
5573540	10/29/2008	691	1.00	691	1182	24.7022%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3381543.936
5573540	9/5/2003	690	1.00	690	1183	24.7231%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3376650.24
5573540	6/22/2008	689	1.00	689	1184	24.7440%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3371756.544
5573540	10/21/2004	688	1.00	688	1185	24.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3366862.848
5573540	5/7/2012	686	1.00	686	1186	24.7858%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3357075.456
5573540	6/20/2008	686	1.00	686	1186	24.7858%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3357075.456
5573540	7/11/2009	686	1.00	686	1186	24.7858%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3357075.456
5573540	5/10/2012	684	1.00	684	1189	24.8485%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3347288.064
5573540	6/25/2011	684	1.00	684	1189	24.8485%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3347288.064
5573540	5/23/2008	683	1.00	683	1191	24.8903%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3342394.368
5573540	6/29/2000	683	1.00	683	1191	24.8903%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3342394.368
5573540	5/4/1990	681	1.00	681	1193	24.9321%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3332606.976
5573540	5/29/2010	681	1.00	681	1193	24.9321%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3332606.976
5573540	7/7/2009	681	1.00	681	1193	24.9321%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3332606.976
5573540	5/6/2006	679	1.00	679	1196	24.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3322819.584

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/22/2014	679	1.00	679	1196	24.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3322819.584
5573540	6/26/2011	677	1.00	677	1198	25.0366%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3313032.192
5573540	6/17/2013	677	1.00	677	1198	25.0366%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3313032.192
5573540	6/2/1994	675	1.00	675	1200	25.0784%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3303244.8
5573540	5/27/1997	674	1.00	674	1201	25.0993%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3298351.104
5573540	6/3/1998	674	1.00	674	1201	25.0993%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3298351.104
5573540	5/7/2006	673	1.00	673	1203	25.1411%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3293457.408
5573540	6/14/1994	673	1.00	673	1203	25.1411%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3293457.408
5573540	6/14/2000	670	1.00	670	1205	25.1829%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3278776.32
5573540	7/12/1990	670	1.00	670	1205	25.1829%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3278776.32
5573540	5/4/1995	669	1.00	669	1207	25.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3273882.624
5573540	5/9/2012	669	1.00	669	1207	25.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3273882.624
5573540	7/4/2008	669	1.00	669	1207	25.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3273882.624
5573540	6/9/2009	668	1.00	668	1210	25.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3268988.928
5573540	7/17/2004	668	1.00	668	1210	25.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3268988.928
5573540	5/22/2011	667	1.00	667	1212	25.3292%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3264095.232
5573540	6/2/1998	667	1.00	667	1212	25.3292%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3264095.232
5573540	7/12/2014	667	1.00	667	1212	25.3292%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3264095.232
5573540	5/1/2010	665	1.00	665	1215	25.3918%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3254307.84
5573540	6/20/2013	665	1.00	665	1215	25.3918%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3254307.84
5573540	7/9/1990	665	1.00	665	1215	25.3918%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3254307.84
5573540	5/16/2006	664	1.00	664	1218	25.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3249414.144
5573540	10/27/2004	664	1.00	664	1218	25.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3249414.144
5573540	5/19/1999	662	1.00	662	1220	25.4963%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3239626.752
5573540	7/23/1998	662	1.00	662	1220	25.4963%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3239626.752
5573540	7/27/2008	659	1.00	659	1222	25.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3224945.664
5573540	6/20/1999	658	1.00	658	1223	25.5590%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3220051.968
5573540	6/19/2013	658	1.00	658	1223	25.5590%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3220051.968
5573540	7/14/1990	658	1.00	658	1223	25.5590%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3220051.968
5573540	5/22/1994	655	1.00	655	1226	25.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3205370.88
5573540	6/23/1996	654	1.00	654	1227	25.6426%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3200477.184
5573540	9/19/2014	654	1.00	654	1227	25.6426%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3200477.184
5573540	5/14/1994	653	1.00	653	1229	25.6844%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3195583.488
5573540	6/29/1995	653	1.00	653	1229	25.6844%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3195583.488
5573540	5/11/2012	652	1.00	652	1231	25.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3190689.792
5573540	6/3/2006	652	1.00	652	1231	25.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3190689.792
5573540	5/13/1993	651	1.00	651	1233	25.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3185796.096
5573540	5/20/1999	651	1.00	651	1233	25.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3185796.096
5573540	6/21/2008	651	1.00	651	1233	25.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3185796.096
5573540	6/1/1991	650	1.00	650	1236	25.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3180902.4
5573540	6/23/2002	650	1.00	650	1236	25.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3180902.4
5573540	7/9/2009	649	1.00	649	1238	25.8725%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3176008.704
5573540	10/25/2006	649	1.00	649	1238	25.8725%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3176008.704
5573540	7/12/2009	648	1.00	648	1240	25.9143%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3171115.008
5573540	6/24/1996	647	1.00	647	1241	25.9352%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3166221.312
5573540	10/13/2014	647	1.00	647	1241	25.9352%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3166221.312

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/29/2008	646	1.00	646	1243	25.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3161327.616
5573540	10/19/2009	644	1.00	644	1244	25.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3151540.224
5573540	6/2/2009	642	1.00	642	1245	26.0188%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3141752.832
5573540	6/16/2013	642	1.00	642	1245	26.0188%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3141752.832
5573540	5/5/2003	640	1.00	640	1247	26.0606%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3131965.44
5573540	5/8/1997	638	1.00	638	1248	26.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3122178.048
5573540	6/16/2000	638	1.00	638	1248	26.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3122178.048
5573540	6/10/2009	638	1.00	638	1248	26.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3122178.048
5573540	6/15/2009	638	1.00	638	1248	26.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3122178.048
5573540	9/1/2009	638	1.00	638	1248	26.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3122178.048
5573540	9/4/2010	637	1.00	637	1253	26.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3117284.352
5573540	9/20/2014	637	1.00	637	1253	26.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3117284.352
5573540	5/8/2006	636	1.00	636	1255	26.2278%	Fecal_coliform	172	cfu/100mL	200	283.2	2676655.964	3112390.656
5573540	7/3/2010	635	1.00	635	1256	26.2487%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3107496.96
5573540	10/10/2014	635	1.00	635	1256	26.2487%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3107496.96
5573540	8/21/1993	634	1.00	634	1258	26.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3102603.264
5573540	6/2/1991	632	1.00	632	1259	26.3114%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3092815.872
5573540	6/11/2013	632	1.00	632	1259	26.3114%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3092815.872
5573540	7/5/2013	632	1.00	632	1259	26.3114%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3092815.872
5573540	6/30/2008	630	1.00	630	1262	26.3741%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3083028.48
5573540	7/14/1998	630	1.00	630	1262	26.3741%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3083028.48
5573540	5/9/1990	629	1.00	629	1264	26.4159%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3078134.784
5573540	7/21/2010	628	1.00	628	1265	26.4368%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3073241.088
5573540	6/6/1998	627	1.00	627	1266	26.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3068347.392
5573540	7/21/2008	627	1.00	627	1266	26.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3068347.392
5573540	5/26/2013	626	1.00	626	1268	26.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3063453.696
5573540	7/3/2011	626	1.00	626	1268	26.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3063453.696
5573540	7/2/2007	625	1.00	625	1270	26.5413%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3058560
5573540	6/17/2009	624	1.00	624	1271	26.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3053666.304
5573540	10/12/2009	624	1.00	624	1271	26.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3053666.304
5573540	6/29/2009	621	1.00	621	1273	26.6040%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3038985.216
5573540	7/4/2009	619	1.00	619	1274	26.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3029197.824
5573540	9/13/2008	619	1.00	619	1274	26.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3029197.824
5573540	5/4/2007	618	1.00	618	1276	26.6667%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3024304.128
5573540	10/24/2001	617	1.00	617	1277	26.6876%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3019410.432
5573540	6/3/2000	616	1.00	616	1278	26.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3014516.736
5573540	9/24/2014	616	1.00	616	1278	26.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3014516.736
5573540	5/20/2013	615	1.00	615	1280	26.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3009623.04
5573540	6/18/2013	615	1.00	615	1280	26.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3009623.04
5573540	10/7/1993	614	1.00	614	1282	26.7921%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3004729.344
5573540	5/19/2003	613	1.00	613	1283	26.8130%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2999835.648
5573540	8/30/2006	613	1.00	613	1283	26.8130%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2999835.648
5573540	5/19/1998	610	1.00	610	1285	26.8548%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2985154.56
5573540	5/20/2003	610	1.00	610	1285	26.8548%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2985154.56
5573540	5/7/1999	608	1.00	608	1287	26.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2975367.168
5573540	5/10/1999	608	1.00	608	1287	26.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2975367.168

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/27/2004	607	1.00	607	1289	26.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2970473.472
5573540	6/27/1997	605	1.00	605	1290	26.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2960686.08
5573540	9/21/2014	605	1.00	605	1290	26.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2960686.08
5573540	7/28/1990	604	1.00	604	1292	27.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2955792.384
5573540	10/9/2008	603	1.00	603	1293	27.0219%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2950898.688
5573540	6/13/2013	602	1.00	602	1294	27.0428%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2946004.992
5573540	6/7/2015	601	1.00	601	1295	27.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2941111.296
5573540	6/9/1994	600	1.00	600	1296	27.0846%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2936217.6
5573540	6/26/2004	599	1.00	599	1297	27.1055%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2931323.904
5573540	6/28/2004	599	1.00	599	1297	27.1055%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2931323.904
5573540	9/25/2014	599	1.00	599	1297	27.1055%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2931323.904
5573540	10/24/2008	599	1.00	599	1297	27.1055%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2931323.904
5573540	5/8/2010	598	1.00	598	1301	27.1891%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2926430.208
5573540	7/25/2008	598	1.00	598	1301	27.1891%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2926430.208
5573540	5/18/1994	596	1.00	596	1303	27.2309%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2916642.816
5573540	5/30/2014	596	1.00	596	1303	27.2309%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2916642.816
5573540	6/16/2009	596	1.00	596	1303	27.2309%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2916642.816
5573540	5/2/1991	595	1.00	595	1306	27.2936%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2911749.12
5573540	6/21/1997	595	1.00	595	1306	27.2936%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2911749.12
5573540	10/17/2009	594	1.00	594	1308	27.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2906855.424
5573540	7/13/1998	593	1.00	593	1309	27.3563%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2901961.728
5573540	8/5/1998	592	1.00	592	1310	27.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2897068.032
5573540	5/1/2004	590	1.00	590	1311	27.3981%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2887280.64
5573540	10/22/2004	590	1.00	590	1311	27.3981%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2887280.64
5573540	6/23/1999	589	1.00	589	1313	27.4399%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2882386.944
5573540	6/26/2007	589	1.00	589	1313	27.4399%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2882386.944
5573540	8/3/1993	589	1.00	589	1313	27.4399%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2882386.944
5573540	5/7/2008	588	1.00	588	1316	27.5026%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2877493.248
5573540	7/13/1990	588	1.00	588	1316	27.5026%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2877493.248
5573540	5/3/1999	587	1.00	587	1318	27.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2872599.552
5573540	5/23/1999	587	1.00	587	1318	27.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2872599.552
5573540	7/9/2000	585	1.00	585	1320	27.5862%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2862812.16
5573540	6/25/1996	584	1.00	584	1321	27.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2857918.464
5573540	7/15/2013	584	1.00	584	1321	27.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2857918.464
5573540	5/2/2014	583	1.00	583	1323	27.6489%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2853024.768
5573540	6/3/2002	583	1.00	583	1323	27.6489%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2853024.768
5573540	7/13/2009	583	1.00	583	1323	27.6489%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2853024.768
5573540	5/11/1999	581	1.00	581	1326	27.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2843237.376
5573540	5/7/2010	581	1.00	581	1326	27.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2843237.376
5573540	8/12/1995	581	1.00	581	1326	27.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2843237.376
5573540	6/7/1995	580	1.00	580	1329	27.7743%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2838343.68
5573540	6/25/1994	579	1.00	579	1330	27.7952%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2833449.984
5573540	6/14/2001	578	1.00	578	1331	27.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2828556.288
5573540	6/30/2014	578	1.00	578	1331	27.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2828556.288
5573540	6/6/2000	577	1.00	577	1333	27.8579%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2823662.592
5573540	5/3/2014	575	1.00	575	1334	27.8788%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2813875.2

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/15/1990	575	1.00	575	1334	27.8788%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2813875.2
5573540	9/5/2010	575	1.00	575	1334	27.8788%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2813875.2
5573540	10/19/2006	575	1.00	575	1334	27.8788%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2813875.2
5573540	8/7/1995	574	1.00	574	1338	27.9624%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2808981.504
5573540	7/4/2011	573	1.00	573	1339	27.9833%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2804087.808
5573540	5/14/1993	572	1.00	572	1340	28.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2799194.112
5573540	5/20/2006	572	1.00	572	1340	28.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2799194.112
5573540	5/3/2010	571	1.00	571	1342	28.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2794300.416
5573540	6/18/2014	571	1.00	571	1342	28.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2794300.416
5573540	8/9/1993	571	1.00	571	1342	28.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2794300.416
5573540	5/14/2006	570	1.00	570	1345	28.1087%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2789406.72
5573540	6/20/1997	570	1.00	570	1345	28.1087%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2789406.72
5573540	5/19/2006	569	1.00	569	1347	28.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2784513.024
5573540	6/10/1995	569	1.00	569	1347	28.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2784513.024
5573540	10/24/2006	569	1.00	569	1347	28.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2784513.024
5573540	5/24/2011	568	1.00	568	1350	28.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2779619.328
5573540	7/1/1999	568	1.00	568	1350	28.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2779619.328
5573540	5/31/1991	567	1.00	567	1352	28.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2774725.632
5573540	7/18/2004	567	1.00	567	1352	28.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2774725.632
5573540	6/18/2000	566	1.00	566	1354	28.2968%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2769831.936
5573540	5/15/2000	565	1.00	565	1355	28.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2764938.24
5573540	7/2/1999	565	1.00	565	1355	28.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2764938.24
5573540	5/17/2013	564	1.00	564	1357	28.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2760044.544
5573540	6/22/1991	562	1.00	562	1358	28.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2750257.152
5573540	5/30/1991	561	1.00	561	1359	28.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2745363.456
5573540	5/9/2010	561	1.00	561	1359	28.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2745363.456
5573540	5/18/2006	560	1.00	560	1361	28.4431%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2740469.76
5573540	5/11/1990	559	1.00	559	1362	28.4639%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2735576.064
5573540	5/17/2006	559	1.00	559	1362	28.4639%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2735576.064
5573540	6/8/1992	559	1.00	559	1362	28.4639%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2735576.064
5573540	5/12/2012	558	1.00	558	1365	28.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2730682.368
5573540	7/4/2010	558	1.00	558	1365	28.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2730682.368
5573540	7/7/2015	558	1.00	558	1365	28.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2730682.368
5573540	9/21/2015	558	1.00	558	1365	28.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2730682.368
5573540	6/26/2002	557	1.00	557	1369	28.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2725788.672
5573540	9/1/2006	557	1.00	557	1369	28.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2725788.672
5573540	6/29/2004	556	1.00	556	1371	28.6520%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2720894.976
5573540	6/14/2013	556	1.00	556	1371	28.6520%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2720894.976
5573540	5/10/2011	555	1.00	555	1373	28.6938%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2716001.28
5573540	6/24/1999	555	1.00	555	1373	28.6938%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2716001.28
5573540	10/8/2008	555	1.00	555	1373	28.6938%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2716001.28
5573540	10/24/1990	552	1.00	552	1376	28.7565%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2701320.192
5573540	9/23/2014	551	1.00	551	1377	28.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2696426.496
5573540	6/10/2002	550	1.00	550	1378	28.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2691532.8
5573540	7/5/2008	549	1.00	549	1379	28.8192%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2686639.104
5573540	5/21/2006	548	1.00	548	1380	28.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2681745.408

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/30/2008	548	1.00	548	1380	28.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2681745.408
5573540	6/4/2006	547	1.00	547	1382	28.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2676851.712
5573540	7/28/2010	547	1.00	547	1382	28.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2676851.712
5573540	9/2/2004	546	1.00	546	1384	28.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2671958.016
5573540	7/3/2000	543	1.00	543	1385	28.9446%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2657276.928
5573540	7/4/2000	543	1.00	543	1385	28.9446%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2657276.928
5573540	7/19/2003	542	1.00	542	1387	28.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2652383.232
5573540	8/24/2014	542	1.00	542	1387	28.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2652383.232
5573540	10/25/2004	542	1.00	542	1387	28.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2652383.232
5573540	10/31/2008	542	1.00	542	1387	28.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2652383.232
5573540	5/9/1999	540	1.00	540	1391	29.0700%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2642595.84
5573540	9/22/2014	540	1.00	540	1391	29.0700%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2642595.84
5573540	5/9/2006	538	1.00	538	1393	29.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2632808.448
5573540	8/18/2006	538	1.00	538	1393	29.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2632808.448
5573540	5/6/2007	537	1.00	537	1395	29.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2627914.752
5573540	5/24/2008	537	1.00	537	1395	29.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2627914.752
5573540	6/15/1993	536	1.00	536	1397	29.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2623021.056
5573540	6/22/1995	535	1.00	535	1398	29.2163%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2618127.36
5573540	5/24/1999	534	1.00	534	1399	29.2372%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2613233.664
5573540	5/4/2008	532	1.00	532	1400	29.2581%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2603446.272
5573540	7/22/2014	531	1.00	531	1401	29.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2598552.576
5573540	8/6/1992	530	1.00	530	1402	29.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2593658.88
5573540	6/7/2000	529	1.00	529	1403	29.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2588765.184
5573540	6/28/2002	529	1.00	529	1403	29.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2588765.184
5573540	5/29/1991	528	1.00	528	1405	29.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2583871.488
5573540	6/26/1997	528	1.00	528	1405	29.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2583871.488
5573540	6/23/2013	528	1.00	528	1405	29.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2583871.488
5573540	5/8/1999	527	1.00	527	1408	29.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2578977.792
5573540	7/20/2003	525	1.00	525	1409	29.4462%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2569190.4
5573540	5/26/1999	524	1.00	524	1410	29.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2564296.704
5573540	6/16/2005	524	1.00	524	1410	29.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2564296.704
5573540	6/28/2007	521	1.00	521	1412	29.5089%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2549615.616
5573540	5/12/2005	520	1.00	520	1413	29.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2544721.92
5573540	7/26/2008	520	1.00	520	1413	29.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2544721.92
5573540	8/4/1993	520	1.00	520	1413	29.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2544721.92
5573540	5/22/2006	518	1.00	518	1416	29.5925%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2534934.528
5573540	5/11/2006	517	1.00	517	1417	29.6134%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2530040.832
5573540	7/2/2000	517	1.00	517	1417	29.6134%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2530040.832
5573540	7/1/2000	516	1.00	516	1419	29.6552%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2525147.136
5573540	6/30/1996	515	1.00	515	1420	29.6761%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2520253.44
5573540	7/18/2003	515	1.00	515	1420	29.6761%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2520253.44
5573540	5/5/1990	514	1.00	514	1422	29.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2515359.744
5573540	6/19/1993	514	1.00	514	1422	29.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2515359.744
5573540	5/21/1999	511	1.00	511	1424	29.7597%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2500678.656
5573540	5/13/2006	508	1.00	508	1425	29.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2485997.568
5573540	5/19/2013	508	1.00	508	1425	29.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2485997.568

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/22/1999	508	1.00	508	1425	29.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2485997.568
5573540	9/11/2014	508	1.00	508	1425	29.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2485997.568
5573540	5/14/2000	505	1.00	505	1429	29.8642%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2471316.48
5573540	6/5/2006	505	1.00	505	1429	29.8642%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2471316.48
5573540	6/20/2014	505	1.00	505	1429	29.8642%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2471316.48
5573540	10/28/2001	505	1.00	505	1429	29.8642%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2471316.48
5573540	5/27/1994	504	1.00	504	1433	29.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2466422.784
5573540	6/16/1993	503	1.00	503	1434	29.9687%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2461529.088
5573540	6/12/2013	502	1.00	502	1435	29.9896%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2456635.392
5573540	9/3/1993	502	1.00	502	1435	29.9896%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2456635.392
5573540	10/6/2000	502	1.00	502	1435	29.9896%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2456635.392
5573540	8/2/1993	501	1.00	501	1438	30.0522%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2451741.696
5573540	5/8/1992	500	1.00	500	1439	30.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2446848
5573540	5/10/1992	500	1.00	500	1439	30.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2446848
5573540	6/5/2002	500	1.00	500	1439	30.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2446848
5573540	7/5/2010	500	1.00	500	1439	30.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2446848
5573540	8/6/1998	497	1.00	497	1443	30.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2432166.912
5573540	9/1/2003	495	1.00	495	1444	30.1776%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2422379.52
5573540	5/25/2013	494	1.00	494	1445	30.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2417485.824
5573540	6/30/2000	494	1.00	494	1445	30.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2417485.824
5573540	5/22/2003	493	1.00	493	1447	30.2403%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2412592.128
5573540	5/1/2008	491	1.00	491	1448	30.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2402804.736
5573540	7/17/2009	490	1.00	490	1449	30.2821%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2397911.04
5573540	10/23/2014	490	1.00	490	1449	30.2821%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2397911.04
5573540	7/1/1995	489	1.00	489	1451	30.3239%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2393017.344
5573540	7/12/1998	489	1.00	489	1451	30.3239%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2393017.344
5573540	6/21/2014	488	1.00	488	1453	30.3657%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2388123.648
5573540	8/26/1993	487	1.00	487	1454	30.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2383229.952
5573540	8/13/1995	487	1.00	487	1454	30.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2383229.952
5573540	6/29/2002	486	1.00	486	1456	30.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2378336.256
5573540	7/2/1995	486	1.00	486	1456	30.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2378336.256
5573540	7/3/1999	486	1.00	486	1456	30.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2378336.256
5573540	10/11/2014	486	1.00	486	1456	30.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2378336.256
5573540	5/2/2004	485	1.00	485	1460	30.5120%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2373442.56
5573540	7/28/2008	485	1.00	485	1460	30.5120%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2373442.56
5573540	6/28/1997	484	1.00	484	1462	30.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2368548.864
5573540	7/10/2014	484	1.00	484	1462	30.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2368548.864
5573540	9/13/1993	484	1.00	484	1462	30.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2368548.864
5573540	5/18/1999	483	1.00	483	1465	30.6165%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2363655.168
5573540	7/20/1992	483	1.00	483	1465	30.6165%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2363655.168
5573540	10/10/2008	482	1.00	482	1467	30.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2358761.472
5573540	7/2/2008	481	1.00	481	1468	30.6792%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2353867.776
5573540	7/23/2013	481	1.00	481	1468	30.6792%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2353867.776
5573540	5/19/1993	480	1.00	480	1470	30.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2348974.08
5573540	6/17/2000	480	1.00	480	1470	30.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2348974.08
5573540	7/4/1999	480	1.00	480	1470	30.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2348974.08

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/24/2003	479	1.00	479	1473	30.7837%	Fecal_coliform	170	cfu/100mL	200	283.2	1992468.326	2344080.384
5573540	10/11/2009	479	1.00	479	1473	30.7837%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2344080.384
5573540	5/25/1993	478	1.00	478	1475	30.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2339186.688
5573540	5/4/1999	477	1.00	477	1476	30.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2334292.992
5573540	6/27/2002	477	1.00	477	1476	30.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2334292.992
5573540	10/12/2014	477	1.00	477	1476	30.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2334292.992
5573540	6/5/2000	476	1.00	476	1479	30.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2329399.296
5573540	5/25/1999	475	1.00	475	1480	30.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2324505.6
5573540	6/24/2008	475	1.00	475	1480	30.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2324505.6
5573540	7/5/1999	475	1.00	475	1480	30.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2324505.6
5573540	7/10/2000	475	1.00	475	1480	30.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2324505.6
5573540	7/3/1995	474	1.00	474	1484	31.0136%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2319611.904
5573540	8/7/2003	474	1.00	474	1484	31.0136%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2319611.904
5573540	6/15/2013	473	1.00	473	1486	31.0554%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2314718.208
5573540	8/11/1995	473	1.00	473	1486	31.0554%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2314718.208
5573540	5/12/1999	472	1.00	472	1488	31.0972%	Fecal_coliform	30	cfu/100mL	200	283.2	346473.6768	2309824.512
5573540	6/21/2003	472	1.00	472	1488	31.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2309824.512
5573540	9/22/2015	472	1.00	472	1488	31.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2309824.512
5573540	10/28/2014	472	1.00	472	1488	31.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2309824.512
5573540	8/29/1992	471	1.00	471	1492	31.1808%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2304930.816
5573540	10/10/2009	471	1.00	471	1492	31.1808%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2304930.816
5573540	7/8/2009	470	1.00	470	1494	31.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2300037.12
5573540	9/26/2014	470	1.00	470	1494	31.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2300037.12
5573540	5/16/1993	469	1.00	469	1496	31.2644%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2295143.424
5573540	7/8/2004	469	1.00	469	1496	31.2644%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2295143.424
5573540	6/2/1993	468	1.00	468	1498	31.3062%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2290249.728
5573540	6/19/1997	468	1.00	468	1498	31.3062%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2290249.728
5573540	5/18/2013	467	1.00	467	1500	31.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2285356.032
5573540	5/4/2014	467	1.00	467	1500	31.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2285356.032
5573540	6/30/1995	467	1.00	467	1500	31.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2285356.032
5573540	5/10/2006	466	1.00	466	1503	31.4107%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2280462.336
5573540	7/1/1996	465	1.00	465	1504	31.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2275568.64
5573540	10/26/2014	464	1.00	464	1505	31.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2270674.944
5573540	6/17/2005	463	1.00	463	1506	31.4734%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2265781.248
5573540	7/3/2009	463	1.00	463	1506	31.4734%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2265781.248
5573540	7/6/2015	463	1.00	463	1506	31.4734%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2265781.248
5573540	10/25/2014	463	1.00	463	1506	31.4734%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2265781.248
5573540	10/29/2014	463	1.00	463	1506	31.4734%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2265781.248
5573540	5/28/1994	462	1.00	462	1511	31.5778%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2260887.552
5573540	6/26/2008	461	1.00	461	1512	31.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2255993.856
5573540	7/15/1998	461	1.00	461	1512	31.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2255993.856
5573540	5/3/1991	460	1.00	460	1514	31.6405%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2251100.16
5573540	5/5/2007	459	1.00	459	1515	31.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2246206.464
5573540	8/15/1999	459	1.00	459	1515	31.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2246206.464
5573540	5/12/2006	458	1.00	458	1517	31.7032%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2241312.768
5573540	6/21/1999	458	1.00	458	1517	31.7032%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2241312.768

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/26/2006	458	1.00	458	1517	31.7032%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2241312.768
5573540	6/30/2002	455	1.00	455	1520	31.7659%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2226631.68
5573540	10/15/2009	455	1.00	455	1520	31.7659%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2226631.68
5573540	6/27/2003	454	1.00	454	1522	31.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2221737.984
5573540	5/22/1999	453	1.00	453	1523	31.8286%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2216844.288
5573540	7/4/1995	453	1.00	453	1523	31.8286%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2216844.288
5573540	7/3/2004	453	1.00	453	1523	31.8286%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2216844.288
5573540	8/30/1993	453	1.00	453	1523	31.8286%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2216844.288
5573540	7/11/2014	452	1.00	452	1527	31.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2211950.592
5573540	5/23/2006	451	1.00	451	1528	31.9331%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2207056.896
5573540	10/26/2004	450	1.00	450	1529	31.9540%	Fecal_coliform	190	cfu/100mL	200	283.2	2092055.04	2202163.2
5573540	7/16/2006	449	1.00	449	1530	31.9749%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2197269.504
5573540	5/20/2015	448	1.00	448	1531	31.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2192375.808
5573540	7/2/2009	448	1.00	448	1531	31.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2192375.808
5573540	6/15/2001	447	1.00	447	1533	32.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2187482.112
5573540	5/27/1999	445	1.00	445	1534	32.0585%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2177694.72
5573540	5/13/2012	445	1.00	445	1534	32.0585%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2177694.72
5573540	8/8/1992	444	1.00	444	1536	32.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2172801.024
5573540	7/3/2007	442	1.00	442	1537	32.1212%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2163013.632
5573540	10/30/2014	442	1.00	442	1537	32.1212%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2163013.632
5573540	5/10/1990	441	1.00	441	1539	32.1630%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2158119.936
5573540	7/18/2009	441	1.00	441	1539	32.1630%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2158119.936
5573540	7/7/2013	441	1.00	441	1539	32.1630%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2158119.936
5573540	5/3/1992	440	1.00	440	1542	32.2257%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2153226.24
5573540	6/22/2003	440	1.00	440	1542	32.2257%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2153226.24
5573540	8/5/1993	440	1.00	440	1542	32.2257%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2153226.24
5573540	10/24/2014	440	1.00	440	1542	32.2257%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2153226.24
5573540	5/29/1994	439	1.00	439	1546	32.3093%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2148332.544
5573540	5/29/2014	439	1.00	439	1546	32.3093%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2148332.544
5573540	7/12/2006	439	1.00	439	1546	32.3093%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2148332.544
5573540	7/7/2010	439	1.00	439	1546	32.3093%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2148332.544
5573540	9/2/2006	439	1.00	439	1546	32.3093%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2148332.544
5573540	5/31/2006	438	1.00	438	1551	32.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2143438.848
5573540	7/16/2009	438	1.00	438	1551	32.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2143438.848
5573540	10/31/2014	437	1.00	437	1553	32.4556%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2138545.152
5573540	6/17/1994	434	1.00	434	1554	32.4765%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2123864.064
5573540	6/19/2014	434	1.00	434	1554	32.4765%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2123864.064
5573540	5/9/2008	433	1.00	433	1556	32.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2118970.368
5573540	5/21/2015	433	1.00	433	1556	32.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2118970.368
5573540	7/8/2013	433	1.00	433	1556	32.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2118970.368
5573540	6/16/2014	432	1.00	432	1559	32.5810%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2114076.672
5573540	7/6/2013	432	1.00	432	1559	32.5810%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2114076.672
5573540	5/23/2011	430	1.00	430	1561	32.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2104289.28
5573540	7/6/2010	430	1.00	430	1561	32.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2104289.28
5573540	7/24/2010	430	1.00	430	1561	32.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2104289.28
5573540	10/27/2014	430	1.00	430	1561	32.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2104289.28

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/7/1998	429	1.00	429	1565	32.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2099395.584
5573540	6/1/1999	429	1.00	429	1565	32.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2099395.584
5573540	6/16/2001	429	1.00	429	1565	32.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2099395.584
5573540	6/30/2003	429	1.00	429	1565	32.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2099395.584
5573540	10/16/2000	428	1.00	428	1569	32.7900%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2094501.888
5573540	6/27/2007	427	1.00	427	1570	32.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2089608.192
5573540	5/2/2000	426	1.00	426	1571	32.8318%	Fecal_coliform	10	cfu/100mL	200	283.2	104235.7248	2084714.496
5573540	8/12/1993	426	1.00	426	1571	32.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2084714.496
5573540	9/3/2010	425	1.00	425	1573	32.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2079820.8
5573540	5/30/1994	423	1.00	423	1574	32.8945%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2070033.408
5573540	5/1/2005	423	1.00	423	1574	32.8945%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2070033.408
5573540	5/3/2008	423	1.00	423	1574	32.8945%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2070033.408
5573540	9/6/2008	423	1.00	423	1574	32.8945%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2070033.408
5573540	10/23/1990	423	1.00	423	1574	32.8945%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2070033.408
5573540	9/28/2008	422	1.00	422	1579	32.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2065139.712
5573540	10/11/2008	422	1.00	422	1579	32.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2065139.712
5573540	5/2/1992	420	1.00	420	1581	33.0408%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2055352.32
5573540	7/9/2013	419	1.00	419	1582	33.0617%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2050458.624
5573540	9/27/2008	418	1.00	418	1583	33.0825%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2045564.928
5573540	5/12/2007	416	1.00	416	1584	33.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2035777.536
5573540	6/17/2001	415	1.00	415	1585	33.1243%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2030883.84
5573540	8/9/1992	415	1.00	415	1585	33.1243%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2030883.84
5573540	6/23/1997	414	1.00	414	1587	33.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2025990.144
5573540	10/17/2006	414	1.00	414	1587	33.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2025990.144
5573540	5/24/2006	412	1.00	412	1589	33.2079%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2016202.752
5573540	6/29/1993	412	1.00	412	1589	33.2079%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2016202.752
5573540	9/29/2008	412	1.00	412	1589	33.2079%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2016202.752
5573540	5/26/2014	411	1.00	411	1592	33.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2011309.056
5573540	7/2/2004	411	1.00	411	1592	33.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2011309.056
5573540	5/4/1992	410	1.00	410	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2006415.36
5573540	5/5/1992	410	1.00	410	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2006415.36
5573540	5/29/2006	410	1.00	410	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2006415.36
5573540	5/19/2015	410	1.00	410	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2006415.36
5573540	6/8/1998	410	1.00	410	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2006415.36
5573540	6/30/2009	410	1.00	410	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2006415.36
5573540	6/17/2014	408	1.00	408	1600	33.4378%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1996627.968
5573540	7/21/1992	408	1.00	408	1600	33.4378%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1996627.968
5573540	10/2/2014	408	1.00	408	1600	33.4378%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1996627.968
5573540	6/24/1994	407	1.00	407	1603	33.5005%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1991734.272
5573540	5/20/1993	405	1.00	405	1604	33.5214%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1981946.88
5573540	6/22/2014	405	1.00	405	1604	33.5214%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1981946.88
5573540	5/23/1994	404	1.00	404	1606	33.5632%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1977053.184
5573540	6/13/2000	404	1.00	404	1606	33.5632%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1977053.184
5573540	8/30/1992	404	1.00	404	1606	33.5632%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1977053.184
5573540	10/19/2001	403	1.00	403	1609	33.6259%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1972159.488
5573540	7/29/1990	401	1.00	401	1610	33.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1962372.096

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/9/2003	401	1.00	401	1610	33.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1962372.096
5573540	5/2/2005	400	1.00	400	1612	33.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1957478.4
5573540	6/10/2000	400	1.00	400	1612	33.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1957478.4
5573540	6/4/2000	398	1.00	398	1614	33.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1947691.008
5573540	7/4/2004	398	1.00	398	1614	33.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1947691.008
5573540	7/23/2014	398	1.00	398	1614	33.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1947691.008
5573540	7/24/2014	397	1.00	397	1617	33.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1942797.312
5573540	8/7/1992	397	1.00	397	1617	33.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1942797.312
5573540	9/7/2009	397	1.00	397	1617	33.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1942797.312
5573540	6/17/1993	396	1.00	396	1620	33.8558%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1937903.616
5573540	6/26/1994	396	1.00	396	1620	33.8558%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1937903.616
5573540	7/7/2004	396	1.00	396	1620	33.8558%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1937903.616
5573540	6/26/1996	395	1.00	395	1623	33.9185%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1933009.92
5573540	8/2/2006	395	1.00	395	1623	33.9185%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1933009.92
5573540	5/8/2004	394	1.00	394	1625	33.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1928116.224
5573540	5/11/2007	392	1.00	392	1626	33.9812%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1918328.832
5573540	6/18/1993	392	1.00	392	1626	33.9812%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1918328.832
5573540	10/26/1990	392	1.00	392	1626	33.9812%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1918328.832
5573540	10/27/2006	392	1.00	392	1626	33.9812%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1918328.832
5573540	6/25/2008	391	1.00	391	1630	34.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1913435.136
5573540	7/19/2009	391	1.00	391	1630	34.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1913435.136
5573540	5/6/1992	390	1.00	390	1632	34.1066%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1908541.44
5573540	5/30/2006	390	1.00	390	1632	34.1066%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1908541.44
5573540	7/1/2009	389	1.00	389	1634	34.1484%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1903647.744
5573540	7/16/2013	387	1.00	387	1635	34.1693%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1893860.352
5573540	7/20/2015	386	1.00	386	1636	34.1902%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1888966.656
5573540	6/8/1994	385	1.00	385	1637	34.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1884072.96
5573540	6/29/1997	385	1.00	385	1637	34.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1884072.96
5573540	6/25/2002	385	1.00	385	1637	34.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1884072.96
5573540	5/13/2004	384	1.00	384	1640	34.2738%	Fecal_coliform	40	cfu/100mL	200	283.2	375835.8528	1879179.264
5573540	10/12/2008	384	1.00	384	1640	34.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1879179.264
5573540	5/30/1999	383	1.00	383	1642	34.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1874285.568
5573540	5/31/1999	383	1.00	383	1642	34.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1874285.568
5573540	5/3/2005	383	1.00	383	1642	34.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1874285.568
5573540	7/18/1990	383	1.00	383	1642	34.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1874285.568
5573540	5/24/1993	382	1.00	382	1646	34.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1869391.872
5573540	5/29/1999	382	1.00	382	1646	34.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1869391.872
5573540	6/4/2001	382	1.00	382	1646	34.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1869391.872
5573540	7/5/2004	381	1.00	381	1649	34.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1864498.176
5573540	7/14/2000	380	1.00	380	1650	34.4828%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1859604.48
5573540	7/9/2011	380	1.00	380	1650	34.4828%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1859604.48
5573540	5/9/1997	378	1.00	378	1652	34.5246%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1849817.088
5573540	5/14/2013	377	1.00	377	1653	34.5455%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1844923.392
5573540	5/28/2014	377	1.00	377	1653	34.5455%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1844923.392
5573540	6/23/2001	377	1.00	377	1653	34.5455%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1844923.392
5573540	7/14/2009	377	1.00	377	1653	34.5455%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1844923.392

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/24/2001	376	1.00	376	1657	34.6290%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1840029.696
5573540	5/10/2015	375	1.00	375	1658	34.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1835136
5573540	6/25/2001	375	1.00	375	1658	34.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1835136
5573540	7/19/2004	375	1.00	375	1658	34.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1835136
5573540	10/16/2008	375	1.00	375	1658	34.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1835136
5573540	8/29/2014	374	1.00	374	1662	34.7335%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1830242.304
5573540	5/15/1997	373	1.00	373	1663	34.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1825348.608
5573540	6/10/1994	373	1.00	373	1663	34.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1825348.608
5573540	5/20/2000	372	1.00	372	1665	34.7962%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1820454.912
5573540	6/30/2004	372	1.00	372	1665	34.7962%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1820454.912
5573540	8/3/2006	372	1.00	372	1665	34.7962%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1820454.912
5573540	5/12/1997	371	1.00	371	1668	34.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1815561.216
5573540	6/26/2001	371	1.00	371	1668	34.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1815561.216
5573540	9/8/2008	370	1.00	370	1670	34.9007%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1810667.52
5573540	7/8/2011	369	1.00	369	1671	34.9216%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1805773.824
5573540	10/31/1992	369	1.00	369	1671	34.9216%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1805773.824
5573540	8/6/2003	368	1.00	368	1673	34.9634%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1800880.128
5573540	5/14/1997	367	1.00	367	1674	34.9843%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1795986.432
5573540	6/14/1991	367	1.00	367	1674	34.9843%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1795986.432
5573540	7/30/1990	367	1.00	367	1674	34.9843%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1795986.432
5573540	7/6/2007	367	1.00	367	1674	34.9843%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1795986.432
5573540	5/21/2005	366	1.00	366	1678	35.0679%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1791092.736
5573540	6/11/1992	366	1.00	366	1678	35.0679%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1791092.736
5573540	6/11/2000	366	1.00	366	1678	35.0679%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1791092.736
5573540	5/30/2007	365	1.00	365	1681	35.1306%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1786199.04
5573540	5/28/1999	363	1.00	363	1682	35.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1776411.648
5573540	5/9/2015	363	1.00	363	1682	35.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1776411.648
5573540	6/22/2001	363	1.00	363	1682	35.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1776411.648
5573540	7/9/2004	363	1.00	363	1682	35.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1776411.648
5573540	5/11/1997	362	1.00	362	1686	35.2351%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1771517.952
5573540	5/23/2003	362	1.00	362	1686	35.2351%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1771517.952
5573540	5/27/2003	362	1.00	362	1686	35.2351%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1771517.952
5573540	7/10/1990	362	1.00	362	1686	35.2351%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1771517.952
5573540	7/23/2015	361	1.00	361	1690	35.3187%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1766624.256
5573540	5/4/2005	360	1.00	360	1691	35.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1761730.56
5573540	7/3/1997	360	1.00	360	1691	35.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1761730.56
5573540	6/3/1994	358	1.00	358	1693	35.3814%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1751943.168
5573540	6/9/2000	357	1.00	357	1694	35.4023%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1747049.472
5573540	7/16/1998	357	1.00	357	1694	35.4023%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1747049.472
5573540	7/25/2014	357	1.00	357	1694	35.4023%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1747049.472
5573540	7/23/1992	355	1.00	355	1697	35.4650%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1737262.08
5573540	7/30/2008	355	1.00	355	1697	35.4650%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1737262.08
5573540	8/31/2006	355	1.00	355	1697	35.4650%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1737262.08
5573540	9/27/2014	355	1.00	355	1697	35.4650%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1737262.08
5573540	5/6/1990	353	1.00	353	1701	35.5486%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1727474.688
5573540	7/15/2009	353	1.00	353	1701	35.5486%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1727474.688

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/18/2005	351	1.00	351	1703	35.5904%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1717687.296
5573540	7/17/2000	351	1.00	351	1703	35.5904%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1717687.296
5573540	5/7/2007	350	1.00	350	1705	35.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1712793.6
5573540	6/3/2003	350	1.00	350	1705	35.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1712793.6
5573540	7/8/1999	350	1.00	350	1705	35.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1712793.6
5573540	7/22/2015	350	1.00	350	1705	35.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1712793.6
5573540	8/22/1995	350	1.00	350	1705	35.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1712793.6
5573540	7/4/1996	349	1.00	349	1710	35.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1707899.904
5573540	5/15/1993	348	1.00	348	1711	35.7576%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1703006.208
5573540	5/13/1997	348	1.00	348	1711	35.7576%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1703006.208
5573540	7/8/2010	348	1.00	348	1711	35.7576%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1703006.208
5573540	7/29/2014	348	1.00	348	1711	35.7576%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1703006.208
5573540	9/30/2008	348	1.00	348	1711	35.7576%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1703006.208
5573540	5/14/1992	347	1.00	347	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1698112.512
5573540	5/19/2000	347	1.00	347	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1698112.512
5573540	6/3/1991	347	1.00	347	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1698112.512
5573540	6/26/2003	347	1.00	347	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1698112.512
5573540	7/6/1997	347	1.00	347	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1698112.512
5573540	9/6/2003	347	1.00	347	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1698112.512
5573540	7/25/1996	346	1.00	346	1722	35.9875%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1693218.816
5573540	8/19/2014	346	1.00	346	1722	35.9875%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1693218.816
5573540	10/6/1993	346	1.00	346	1722	35.9875%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1693218.816
5573540	5/10/1997	344	1.00	344	1725	36.0502%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1683431.424
5573540	10/17/2000	344	1.00	344	1725	36.0502%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1683431.424
5573540	5/28/2001	343	1.00	343	1727	36.0920%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1678537.728
5573540	5/5/2015	343	1.00	343	1727	36.0920%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1678537.728
5573540	7/16/2000	343	1.00	343	1727	36.0920%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1678537.728
5573540	6/13/1991	341	1.00	341	1730	36.1546%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1668750.336
5573540	7/4/1994	341	1.00	341	1730	36.1546%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1668750.336
5573540	7/4/2007	341	1.00	341	1730	36.1546%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1668750.336
5573540	5/11/1992	340	1.00	340	1733	36.2173%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1663856.64
5573540	5/17/2007	340	1.00	340	1733	36.2173%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1663856.64
5573540	6/18/2001	340	1.00	340	1733	36.2173%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1663856.64
5573540	10/23/2006	340	1.00	340	1733	36.2173%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1663856.64
5573540	5/1/2000	339	1.00	339	1737	36.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1658962.944
5573540	6/29/1996	339	1.00	339	1737	36.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1658962.944
5573540	5/5/2005	338	1.00	338	1739	36.3427%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1654069.248
5573540	10/29/1990	338	1.00	338	1739	36.3427%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1654069.248
5573540	5/7/2004	337	1.00	337	1741	36.3845%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1649175.552
5573540	8/31/1993	337	1.00	337	1741	36.3845%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1649175.552
5573540	6/10/1992	336	1.00	336	1743	36.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1644281.856
5573540	6/12/2005	336	1.00	336	1743	36.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1644281.856
5573540	9/28/2014	335	1.00	335	1745	36.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1639388.16
5573540	5/16/1997	334	1.00	334	1746	36.4890%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1634494.464
5573540	6/8/2000	334	1.00	334	1746	36.4890%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1634494.464
5573540	10/29/2006	334	1.00	334	1746	36.4890%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1634494.464

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/15/1992	333	1.00	333	1749	36.5517%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1629600.768
5573540	7/25/2003	331	1.00	331	1750	36.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1619813.376
5573540	9/7/2003	331	1.00	331	1750	36.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1619813.376
5573540	5/13/2007	330	1.00	330	1752	36.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1614919.68
5573540	7/5/2007	330	1.00	330	1752	36.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1614919.68
5573540	7/26/2014	330	1.00	330	1752	36.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1614919.68
5573540	5/16/2007	329	1.00	329	1755	36.6771%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1610025.984
5573540	5/10/2008	329	1.00	329	1755	36.6771%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1610025.984
5573540	5/25/2006	328	1.00	328	1757	36.7189%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1605132.288
5573540	6/28/1996	328	1.00	328	1757	36.7189%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1605132.288
5573540	7/5/2011	328	1.00	328	1757	36.7189%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1605132.288
5573540	5/29/2007	327	1.00	327	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1600238.592
5573540	5/22/2015	327	1.00	327	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1600238.592
5573540	6/24/1997	327	1.00	327	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1600238.592
5573540	6/2/2003	327	1.00	327	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1600238.592
5573540	7/24/2015	327	1.00	327	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1600238.592
5573540	10/28/2006	327	1.00	327	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1600238.592
5573540	5/22/2005	326	1.00	326	1766	36.9070%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1595344.896
5573540	5/9/2004	325	1.00	325	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1590451.2
5573540	5/4/2010	325	1.00	325	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1590451.2
5573540	6/10/2006	325	1.00	325	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1590451.2
5573540	7/5/1997	325	1.00	325	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1590451.2
5573540	7/15/2000	325	1.00	325	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1590451.2
5573540	7/28/2014	325	1.00	325	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1590451.2
5573540	5/3/2004	324	1.00	324	1773	37.0533%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1585557.504
5573540	5/2/2008	324	1.00	324	1773	37.0533%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1585557.504
5573540	5/27/2000	323	1.00	323	1775	37.0951%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1580663.808
5573540	7/5/1996	323	1.00	323	1775	37.0951%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1580663.808
5573540	8/7/1998	323	1.00	323	1775	37.0951%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1580663.808
5573540	8/2/2008	323	1.00	323	1775	37.0951%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1580663.808
5573540	5/31/2007	322	1.00	322	1779	37.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1575770.112
5573540	5/1/2014	322	1.00	322	1779	37.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1575770.112
5573540	7/3/1992	322	1.00	322	1779	37.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1575770.112
5573540	6/4/2002	319	1.00	319	1782	37.2414%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1561089.024
5573540	7/21/1990	319	1.00	319	1782	37.2414%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1561089.024
5573540	10/30/1993	319	1.00	319	1782	37.2414%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1561089.024
5573540	8/8/2003	318	1.00	318	1785	37.3041%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1556195.328
5573540	6/6/2006	317	1.00	317	1786	37.3250%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1551301.632
5573540	7/17/2006	316	1.00	316	1787	37.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1546407.936
5573540	10/22/2009	316	1.00	316	1787	37.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1546407.936
5573540	6/9/2006	315	1.00	315	1789	37.3877%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1541514.24
5573540	5/22/1992	314	1.00	314	1790	37.4086%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1536620.544
5573540	10/25/1990	314	1.00	314	1790	37.4086%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1536620.544
5573540	8/1/2008	313	1.00	313	1792	37.4504%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1531726.848
5573540	5/23/2005	312	1.00	312	1793	37.4713%	Fecal_coliform	40	cfu/100mL	200	283.2	305366.6304	1526833.152
5573540	7/27/2014	312	1.00	312	1793	37.4713%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1526833.152

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/17/1990	311	1.00	311	1795	37.5131%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1521939.456
5573540	7/31/2008	311	1.00	311	1795	37.5131%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1521939.456
5573540	7/20/2009	311	1.00	311	1795	37.5131%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1521939.456
5573540	9/29/2014	311	1.00	311	1795	37.5131%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1521939.456
5573540	10/28/1990	311	1.00	311	1795	37.5131%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1521939.456
5573540	5/7/1995	310	1.00	310	1800	37.6176%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1517045.76
5573540	7/4/1997	310	1.00	310	1800	37.6176%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1517045.76
5573540	5/6/2015	309	1.00	309	1802	37.6594%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1512152.064
5573540	6/29/2008	309	1.00	309	1802	37.6594%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1512152.064
5573540	7/7/1997	309	1.00	309	1802	37.6594%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1512152.064
5573540	5/23/2015	308	1.00	308	1805	37.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1507258.368
5573540	8/3/2008	307	1.00	307	1806	37.7429%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1502364.672
5573540	10/30/1992	307	1.00	307	1806	37.7429%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1502364.672
5573540	7/17/1998	306	1.00	306	1808	37.7847%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1497470.976
5573540	5/8/1990	304	1.00	304	1809	37.8056%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1487683.584
5573540	5/23/1992	304	1.00	304	1809	37.8056%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1487683.584
5573540	5/16/2000	304	1.00	304	1809	37.8056%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1487683.584
5573540	6/19/1994	304	1.00	304	1809	37.8056%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1487683.584
5573540	6/24/2002	304	1.00	304	1809	37.8056%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1487683.584
5573540	6/11/2006	302	1.00	302	1814	37.9101%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1477896.192
5573540	7/8/1990	302	1.00	302	1814	37.9101%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1477896.192
5573540	7/10/2011	301	1.00	301	1816	37.9519%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1473002.496
5573540	5/11/2004	300	1.00	300	1817	37.9728%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1468108.8
5573540	7/7/2007	300	1.00	300	1817	37.9728%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1468108.8
5573540	6/5/1991	299	1.00	299	1819	38.0146%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1463215.104
5573540	5/28/2003	298	1.00	298	1820	38.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1458321.408
5573540	5/11/2005	298	1.00	298	1820	38.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1458321.408
5573540	9/2/2014	298	1.00	298	1820	38.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1458321.408
5573540	9/30/2014	298	1.00	298	1820	38.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1458321.408
5573540	6/27/2008	297	1.00	297	1824	38.1191%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1453427.712
5573540	10/9/2009	297	1.00	297	1824	38.1191%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1453427.712
5573540	5/13/2005	296	1.00	296	1826	38.1609%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1448534.016
5573540	7/29/2010	296	1.00	296	1826	38.1609%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1448534.016
5573540	9/8/2009	296	1.00	296	1826	38.1609%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1448534.016
5573540	6/23/2014	295	1.00	295	1829	38.2236%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1443640.32
5573540	8/10/1995	294	1.00	294	1830	38.2445%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1438746.624
5573540	5/2/1995	293	1.00	293	1831	38.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1433852.928
5573540	5/13/2000	293	1.00	293	1831	38.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1433852.928
5573540	5/24/2005	293	1.00	293	1831	38.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1433852.928
5573540	8/15/1992	293	1.00	293	1831	38.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1433852.928
5573540	5/10/2004	292	1.00	292	1835	38.3490%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1428959.232
5573540	7/16/1990	292	1.00	292	1835	38.3490%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1428959.232
5573540	5/1/1990	291	1.00	291	1837	38.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1424065.536
5573540	5/6/2012	291	1.00	291	1837	38.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1424065.536
5573540	7/25/2015	291	1.00	291	1837	38.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1424065.536
5573540	9/6/2010	291	1.00	291	1837	38.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1424065.536

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/6/2008	290	1.00	290	1841	38.4744%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1419171.84
5573540	9/4/2008	290	1.00	290	1841	38.4744%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1419171.84
5573540	6/2/2014	289	1.00	289	1843	38.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1414278.144
5573540	8/8/2014	289	1.00	289	1843	38.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1414278.144
5573540	10/9/2003	289	1.00	289	1843	38.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1414278.144
5573540	7/22/1998	288	1.00	288	1846	38.5789%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1409384.448
5573540	7/1/2004	288	1.00	288	1846	38.5789%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1409384.448
5573540	10/15/2008	288	1.00	288	1846	38.5789%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1409384.448
5573540	10/22/2008	288	1.00	288	1846	38.5789%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1409384.448
5573540	7/19/1998	287	1.00	287	1850	38.6625%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1404490.752
5573540	5/26/1992	285	1.00	285	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1394703.36
5573540	5/18/2007	285	1.00	285	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1394703.36
5573540	7/18/1999	285	1.00	285	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1394703.36
5573540	8/16/1998	285	1.00	285	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1394703.36
5573540	8/24/2002	285	1.00	285	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1394703.36
5573540	10/27/1990	285	1.00	285	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1394703.36
5573540	7/18/1998	284	1.00	284	1857	38.8088%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1389809.664
5573540	8/9/1995	284	1.00	284	1857	38.8088%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1389809.664
5573540	5/12/2004	283	1.00	283	1859	38.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1384915.968
5573540	6/21/1991	283	1.00	283	1859	38.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1384915.968
5573540	8/7/2008	283	1.00	283	1859	38.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1384915.968
5573540	5/24/2003	282	1.00	282	1862	38.9133%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1380022.272
5573540	7/6/1999	282	1.00	282	1862	38.9133%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1380022.272
5573540	9/10/1992	282	1.00	282	1862	38.9133%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1380022.272
5573540	10/8/2003	282	1.00	282	1862	38.9133%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1380022.272
5573540	5/5/2014	281	1.00	281	1866	38.9969%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1375128.576
5573540	9/3/2009	281	1.00	281	1866	38.9969%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1375128.576
5573540	5/7/1992	280	1.00	280	1868	39.0387%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1370234.88
5573540	6/19/2006	280	1.00	280	1868	39.0387%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1370234.88
5573540	7/5/1995	280	1.00	280	1868	39.0387%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1370234.88
5573540	7/2/1997	280	1.00	280	1868	39.0387%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1370234.88
5573540	6/18/1994	279	1.00	279	1872	39.1223%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1365341.184
5573540	8/29/1990	279	1.00	279	1872	39.1223%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1365341.184
5573540	10/13/2008	279	1.00	279	1872	39.1223%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1365341.184
5573540	5/29/2003	278	1.00	278	1875	39.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1360447.488
5573540	5/30/2015	278	1.00	278	1875	39.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1360447.488
5573540	6/27/1996	278	1.00	278	1875	39.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1360447.488
5573540	6/22/1997	278	1.00	278	1875	39.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1360447.488
5573540	7/22/1992	278	1.00	278	1875	39.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1360447.488
5573540	5/26/1997	277	1.00	277	1880	39.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1355553.792
5573540	5/11/2000	277	1.00	277	1880	39.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1355553.792
5573540	6/19/2000	277	1.00	277	1880	39.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1355553.792
5573540	6/23/2003	276	1.00	276	1883	39.3521%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1350660.096
5573540	7/1/2002	276	1.00	276	1883	39.3521%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1350660.096
5573540	10/24/2004	276	1.00	276	1883	39.3521%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1350660.096
5573540	5/28/1992	275	1.00	275	1886	39.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1345766.4

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/17/1997	275	1.00	275	1886	39.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1345766.4
5573540	6/28/2003	275	1.00	275	1886	39.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1345766.4
5573540	7/27/1999	275	1.00	275	1886	39.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1345766.4
5573540	5/27/1992	274	1.00	274	1890	39.4984%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1340872.704
5573540	5/11/2011	274	1.00	274	1890	39.4984%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1340872.704
5573540	9/8/2003	274	1.00	274	1890	39.4984%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1340872.704
5573540	5/22/2001	273	1.00	273	1893	39.5611%	Fecal_coliform	200	cfu/100mL	200	283.2	1335979.008	1335979.008
5573540	5/27/2014	273	1.00	273	1893	39.5611%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1335979.008
5573540	5/24/2015	273	1.00	273	1893	39.5611%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1335979.008
5573540	8/30/1990	272	1.00	272	1896	39.6238%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1331085.312
5573540	10/1/2008	272	1.00	272	1896	39.6238%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1331085.312
5573540	10/23/2008	272	1.00	272	1896	39.6238%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1331085.312
5573540	5/25/1992	271	1.00	271	1899	39.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1326191.616
5573540	5/3/2000	271	1.00	271	1899	39.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1326191.616
5573540	7/30/2014	271	1.00	271	1899	39.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1326191.616
5573540	8/21/1997	271	1.00	271	1899	39.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1326191.616
5573540	8/9/2003	271	1.00	271	1899	39.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1326191.616
5573540	6/19/2001	270	1.00	270	1904	39.7910%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1321297.92
5573540	6/19/2005	270	1.00	270	1904	39.7910%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1321297.92
5573540	7/26/1998	270	1.00	270	1904	39.7910%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1321297.92
5573540	7/7/1999	270	1.00	270	1904	39.7910%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1321297.92
5573540	6/14/1992	269	1.00	269	1908	39.8746%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1316404.224
5573540	7/8/1997	268	1.00	268	1909	39.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1311510.528
5573540	5/27/2001	267	1.00	267	1910	39.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1306616.832
5573540	6/6/1994	267	1.00	267	1910	39.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1306616.832
5573540	7/12/1997	267	1.00	267	1910	39.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1306616.832
5573540	7/15/2006	267	1.00	267	1910	39.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1306616.832
5573540	8/30/2002	267	1.00	267	1910	39.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1306616.832
5573540	5/29/1993	266	1.00	266	1915	40.0209%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1301723.136
5573540	8/10/1992	265	1.00	265	1916	40.0418%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1296829.44
5573540	7/9/1997	264	1.00	264	1917	40.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1291935.744
5573540	5/15/1992	263	1.00	263	1918	40.0836%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1287042.048
5573540	7/11/1997	263	1.00	263	1918	40.0836%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1287042.048
5573540	7/12/2010	263	1.00	263	1918	40.0836%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1287042.048
5573540	5/7/1990	261	1.00	261	1921	40.1463%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1277254.656
5573540	6/20/2006	261	1.00	261	1921	40.1463%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1277254.656
5573540	6/7/1994	260	1.00	260	1923	40.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1272360.96
5573540	7/1/2003	260	1.00	260	1923	40.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1272360.96
5573540	7/26/2015	260	1.00	260	1923	40.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1272360.96
5573540	10/30/2006	258	1.00	258	1926	40.2508%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1262573.568
5573540	7/15/1997	257	1.00	257	1927	40.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1257679.872
5573540	8/2/2014	257	1.00	257	1927	40.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1257679.872
5573540	5/24/2000	256	1.00	256	1929	40.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1252786.176
5573540	6/12/2000	256	1.00	256	1929	40.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1252786.176
5573540	5/26/2003	255	1.00	255	1931	40.3553%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1247892.48
5573540	5/15/2007	255	1.00	255	1931	40.3553%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1247892.48

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/26/2015	254	1.00	254	1933	40.3971%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1242998.784
5573540	6/1/2003	254	1.00	254	1933	40.3971%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1242998.784
5573540	5/28/1993	253	1.00	253	1935	40.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1238105.088
5573540	5/29/2001	253	1.00	253	1935	40.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1238105.088
5573540	5/11/2014	253	1.00	253	1935	40.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1238105.088
5573540	7/5/2002	253	1.00	253	1935	40.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1238105.088
5573540	7/7/2011	253	1.00	253	1935	40.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1238105.088
5573540	7/24/1996	252	1.00	252	1940	40.5434%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1233211.392
5573540	8/11/1993	252	1.00	252	1940	40.5434%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1233211.392
5573540	6/5/1994	251	1.00	251	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1228317.696
5573540	6/16/1994	251	1.00	251	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1228317.696
5573540	7/27/1998	251	1.00	251	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1228317.696
5573540	7/24/2004	251	1.00	251	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1228317.696
5573540	7/9/2010	251	1.00	251	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1228317.696
5573540	7/13/2010	251	1.00	251	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1228317.696
5573540	7/11/2010	250	1.00	250	1948	40.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1223424
5573540	5/14/2007	249	1.00	249	1949	40.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1218530.304
5573540	5/13/2011	248	1.00	248	1950	40.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1213636.608
5573540	9/4/1997	248	1.00	248	1950	40.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1213636.608
5573540	9/3/2004	248	1.00	248	1950	40.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1213636.608
5573540	6/4/1994	247	1.00	247	1953	40.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1208742.912
5573540	5/10/2000	246	1.00	246	1954	40.8359%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1203849.216
5573540	6/9/2004	246	1.00	246	1954	40.8359%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1203849.216
5573540	5/18/1997	245	1.00	245	1956	40.8777%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1198955.52
5573540	5/19/1997	245	1.00	245	1956	40.8777%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1198955.52
5573540	5/6/2005	244	1.00	244	1958	40.9195%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1194061.824
5573540	5/10/2005	244	1.00	244	1958	40.9195%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1194061.824
5573540	7/18/2000	244	1.00	244	1958	40.9195%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1194061.824
5573540	5/27/1993	243	1.00	243	1961	40.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1189168.128
5573540	5/19/2007	243	1.00	243	1961	40.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1189168.128
5573540	7/14/2011	243	1.00	243	1961	40.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1189168.128
5573540	10/17/2008	243	1.00	243	1961	40.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1189168.128
5573540	5/20/1997	241	1.00	241	1965	41.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1179380.736
5573540	5/25/2015	241	1.00	241	1965	41.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1179380.736
5573540	7/10/1997	241	1.00	241	1965	41.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1179380.736
5573540	8/14/1992	241	1.00	241	1965	41.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1179380.736
5573540	6/11/1994	240	1.00	240	1969	41.1494%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1174487.04
5573540	7/6/2002	240	1.00	240	1969	41.1494%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1174487.04
5573540	5/31/1993	239	1.00	239	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1169593.344
5573540	5/2/1997	239	1.00	239	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1169593.344
5573540	5/21/1997	239	1.00	239	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1169593.344
5573540	5/11/2001	239	1.00	239	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1169593.344
5573540	5/20/2007	239	1.00	239	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1169593.344
5573540	5/5/2012	239	1.00	239	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1169593.344
5573540	8/13/1992	239	1.00	239	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1169593.344
5573540	8/16/1993	239	1.00	239	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1169593.344

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/14/1995	239	1.00	239	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1169593.344
5573540	8/22/1997	239	1.00	239	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1169593.344
5573540	8/24/2006	239	1.00	239	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1169593.344
5573540	5/25/2005	238	1.00	238	1982	41.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1164699.648
5573540	5/10/2007	238	1.00	238	1982	41.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1164699.648
5573540	5/4/2015	238	1.00	238	1982	41.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1164699.648
5573540	8/10/2003	236	1.00	236	1985	41.4838%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1154912.256
5573540	6/3/2014	235	1.00	235	1986	41.5047%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1150018.56
5573540	6/8/2006	234	1.00	234	1987	41.5256%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1145124.864
5573540	7/10/2010	234	1.00	234	1987	41.5256%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1145124.864
5573540	8/8/1998	233	1.00	233	1989	41.5674%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1140231.168
5573540	7/6/2004	232	1.00	232	1990	41.5883%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1135337.472
5573540	5/21/1993	231	1.00	231	1991	41.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1130443.776
5573540	5/31/1994	231	1.00	231	1991	41.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1130443.776
5573540	7/21/2013	231	1.00	231	1991	41.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1130443.776
5573540	5/23/2001	230	1.00	230	1994	41.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1125550.08
5573540	5/31/2001	230	1.00	230	1994	41.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1125550.08
5573540	7/18/2006	230	1.00	230	1994	41.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1125550.08
5573540	5/12/2000	229	1.00	229	1997	41.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1120656.384
5573540	5/25/2003	229	1.00	229	1997	41.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1120656.384
5573540	7/21/2015	229	1.00	229	1997	41.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1120656.384
5573540	10/21/2001	229	1.00	229	1997	41.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1120656.384
5573540	10/23/2004	228	1.00	228	2001	41.8182%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1115762.688
5573540	6/1/2007	227	1.00	227	2002	41.8391%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1110868.992
5573540	7/9/1995	227	1.00	227	2002	41.8391%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1110868.992
5573540	8/28/2014	227	1.00	227	2002	41.8391%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1110868.992
5573540	5/21/2007	226	1.00	226	2005	41.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1105975.296
5573540	7/8/1995	226	1.00	226	2005	41.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1105975.296
5573540	8/9/1998	226	1.00	226	2005	41.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1105975.296
5573540	8/11/1992	225	1.00	225	2008	41.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1101081.6
5573540	8/5/2003	225	1.00	225	2008	41.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1101081.6
5573540	8/6/2008	225	1.00	225	2008	41.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1101081.6
5573540	10/31/1990	225	1.00	225	2008	41.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1101081.6
5573540	5/1/1997	224	1.00	224	2012	42.0481%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1096187.904
5573540	8/23/2006	224	1.00	224	2012	42.0481%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1096187.904
5573540	5/25/1997	223	1.00	223	2014	42.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1091294.208
5573540	5/12/2014	223	1.00	223	2014	42.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1091294.208
5573540	8/28/1997	223	1.00	223	2014	42.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1091294.208
5573540	8/9/2014	223	1.00	223	2014	42.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1091294.208
5573540	6/21/2001	222	1.00	222	2018	42.1735%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1086400.512
5573540	5/12/2001	221	1.00	221	2019	42.1944%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1081506.816
5573540	7/2/1992	221	1.00	221	2019	42.1944%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1081506.816
5573540	5/22/1997	220	1.00	220	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1076613.12
5573540	5/3/2015	220	1.00	220	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1076613.12
5573540	6/24/2003	220	1.00	220	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1076613.12
5573540	6/29/2003	220	1.00	220	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1076613.12

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/4/2006	220	1.00	220	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1076613.12
5573540	9/8/2004	220	1.00	220	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1076613.12
5573540	5/9/2005	219	1.00	219	2027	42.3615%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1071719.424
5573540	6/5/1992	219	1.00	219	2027	42.3615%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1071719.424
5573540	6/12/1994	219	1.00	219	2027	42.3615%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1071719.424
5573540	10/8/1990	219	1.00	219	2027	42.3615%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1071719.424
5573540	6/12/2006	217	1.00	217	2031	42.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1061932.032
5573540	6/23/2007	217	1.00	217	2031	42.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1061932.032
5573540	7/12/1994	217	1.00	217	2031	42.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1061932.032
5573540	9/9/2003	217	1.00	217	2031	42.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1061932.032
5573540	10/30/1990	217	1.00	217	2031	42.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1061932.032
5573540	5/24/1997	216	1.00	216	2036	42.5496%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1057038.336
5573540	7/6/1995	216	1.00	216	2036	42.5496%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1057038.336
5573540	10/21/2008	216	1.00	216	2036	42.5496%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1057038.336
5573540	5/21/2000	215	1.00	215	2039	42.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1052144.64
5573540	5/4/2004	215	1.00	215	2039	42.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1052144.64
5573540	6/11/2003	215	1.00	215	2039	42.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1052144.64
5573540	9/9/2009	215	1.00	215	2039	42.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1052144.64
5573540	5/29/1992	214	1.00	214	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1047250.944
5573540	6/15/1994	214	1.00	214	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1047250.944
5573540	6/28/2008	214	1.00	214	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1047250.944
5573540	7/7/1995	214	1.00	214	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1047250.944
5573540	8/4/2015	214	1.00	214	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1047250.944
5573540	9/3/1997	214	1.00	214	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1047250.944
5573540	5/22/2007	213	1.00	213	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1042357.248
5573540	5/10/2014	213	1.00	213	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1042357.248
5573540	5/27/2015	213	1.00	213	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1042357.248
5573540	6/21/2013	213	1.00	213	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1042357.248
5573540	7/21/2009	213	1.00	213	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1042357.248
5573540	8/7/2014	213	1.00	213	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1042357.248
5573540	10/1/2014	213	1.00	213	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1042357.248
5573540	10/7/2008	212	1.00	212	2056	42.9676%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1037463.552
5573540	5/23/2000	211	1.00	211	2057	42.9885%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1032569.856
5573540	6/6/1992	211	1.00	211	2057	42.9885%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1032569.856
5573540	9/3/2006	211	1.00	211	2057	42.9885%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1032569.856
5573540	5/28/2007	210	1.00	210	2060	43.0512%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1027676.16
5573540	7/23/2000	209	1.00	209	2061	43.0721%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1022782.464
5573540	7/20/1997	208	1.00	208	2062	43.0930%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1017888.768
5573540	8/3/2014	208	1.00	208	2062	43.0930%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1017888.768
5573540	7/13/1997	207	1.00	207	2064	43.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1012995.072
5573540	7/23/2004	207	1.00	207	2064	43.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1012995.072
5573540	7/14/2010	207	1.00	207	2064	43.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1012995.072
5573540	10/2/2008	207	1.00	207	2064	43.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1012995.072
5573540	10/20/2008	207	1.00	207	2064	43.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1012995.072
5573540	9/23/2015	206	1.00	206	2069	43.2393%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1008101.376
5573540	5/6/2010	205	1.00	205	2070	43.2602%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1003207.68

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/16/2005	204	1.00	204	2071	43.2811%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	998313.984
5573540	7/20/2004	204	1.00	204	2071	43.2811%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	998313.984
5573540	5/18/2000	203	1.00	203	2073	43.3229%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	993420.288
5573540	7/28/1999	202	1.00	202	2074	43.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	988526.592
5573540	7/4/2002	202	1.00	202	2074	43.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	988526.592
5573540	9/2/1992	202	1.00	202	2074	43.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	988526.592
5573540	8/2/2003	201	1.00	201	2077	43.4065%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	983632.896
5573540	10/18/2008	201	1.00	201	2077	43.4065%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	983632.896
5573540	5/1/1992	200	1.00	200	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	978739.2
5573540	5/25/2000	200	1.00	200	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	978739.2
5573540	8/26/2004	200	1.00	200	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	978739.2
5573540	8/5/2014	200	1.00	200	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	978739.2
5573540	10/19/2008	200	1.00	200	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	978739.2
5573540	10/20/2009	200	1.00	200	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	978739.2
5573540	5/13/2001	199	1.00	199	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	973845.504
5573540	5/8/2015	199	1.00	199	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	973845.504
5573540	7/17/1999	199	1.00	199	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	973845.504
5573540	7/24/2000	199	1.00	199	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	973845.504
5573540	7/17/2013	199	1.00	199	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	973845.504
5573540	10/4/2008	199	1.00	199	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	973845.504
5573540	7/3/2002	198	1.00	198	2091	43.6991%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	968951.808
5573540	5/2/2015	197	1.00	197	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	964058.112
5573540	6/27/2001	197	1.00	197	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	964058.112
5573540	7/13/1994	197	1.00	197	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	964058.112
5573540	7/31/1998	197	1.00	197	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	964058.112
5573540	7/25/2004	197	1.00	197	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	964058.112
5573540	10/14/2008	197	1.00	197	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	964058.112
5573540	5/21/2001	196	1.00	196	2098	43.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	959164.416
5573540	6/4/2003	196	1.00	196	2098	43.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	959164.416
5573540	7/23/2010	196	1.00	196	2098	43.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	959164.416
5573540	9/7/2004	196	1.00	196	2098	43.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	959164.416
5573540	6/25/1997	195	1.00	195	2102	43.9289%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	954270.72
5573540	7/8/2007	195	1.00	195	2102	43.9289%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	954270.72
5573540	8/4/2009	194	1.00	194	2104	43.9707%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	949377.024
5573540	5/8/2005	193	1.00	193	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	944483.328
5573540	6/12/1992	193	1.00	193	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	944483.328
5573540	7/14/1997	193	1.00	193	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	944483.328
5573540	7/19/2010	193	1.00	193	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	944483.328
5573540	8/6/2000	193	1.00	193	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	944483.328
5573540	8/4/2008	193	1.00	193	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	944483.328
5573540	5/12/2011	192	1.00	192	2111	44.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	939589.632
5573540	5/30/1993	191	1.00	191	2112	44.1379%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	934695.936
5573540	7/31/2015	191	1.00	191	2112	44.1379%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	934695.936
5573540	10/16/2009	191	1.00	191	2112	44.1379%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	934695.936
5573540	10/5/2008	190	1.00	190	2115	44.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	929802.24
5573540	5/8/2007	189	1.00	189	2116	44.2215%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	924908.544

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/12/1992	189	1.00	189	2116	44.2215%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	924908.544
5573540	8/1/2015	189	1.00	189	2116	44.2215%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	924908.544
5573540	5/27/2007	188	1.00	188	2119	44.2842%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	920014.848
5573540	7/20/2013	188	1.00	188	2119	44.2842%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	920014.848
5573540	8/21/1990	188	1.00	188	2119	44.2842%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	920014.848
5573540	7/6/2011	186	1.00	186	2122	44.3469%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	910227.456
5573540	5/15/2005	185	1.00	185	2123	44.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	905333.76
5573540	7/4/1992	185	1.00	185	2123	44.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	905333.76
5573540	7/3/1996	185	1.00	185	2123	44.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	905333.76
5573540	7/24/1998	185	1.00	185	2123	44.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	905333.76
5573540	5/26/1993	184	1.00	184	2127	44.4514%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	900440.064
5573540	8/3/2003	184	1.00	184	2127	44.4514%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	900440.064
5573540	8/6/2014	184	1.00	184	2127	44.4514%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	900440.064
5573540	5/28/2015	183	1.00	183	2130	44.5141%	Fecal_coliform	56	cfu/100mL	200	283.2	250752.983	895546.368
5573540	7/20/1990	183	1.00	183	2130	44.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	895546.368
5573540	8/8/1991	183	1.00	183	2130	44.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	895546.368
5573540	9/11/1992	183	1.00	183	2130	44.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	895546.368
5573540	10/3/2008	183	1.00	183	2130	44.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	895546.368
5573540	7/23/1996	182	1.00	182	2135	44.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	890652.672
5573540	5/30/2003	181	1.00	181	2136	44.6395%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	885758.976
5573540	10/15/2000	181	1.00	181	2136	44.6395%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	885758.976
5573540	5/12/1992	180	1.00	180	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	880865.28
5573540	6/25/2003	180	1.00	180	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	880865.28
5573540	7/6/1996	180	1.00	180	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	880865.28
5573540	7/7/2002	180	1.00	180	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	880865.28
5573540	8/29/1997	180	1.00	180	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	880865.28
5573540	8/1/2014	180	1.00	180	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	880865.28
5573540	8/4/2014	180	1.00	180	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	880865.28
5573540	5/31/2003	179	1.00	179	2145	44.8276%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	875971.584
5573540	6/2/2007	179	1.00	179	2145	44.8276%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	875971.584
5573540	9/1/1993	178	1.00	178	2147	44.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	871077.888
5573540	5/26/2007	177	1.00	177	2148	44.8903%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	866184.192
5573540	5/30/2001	176	1.00	176	2149	44.9112%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	861290.496
5573540	8/10/2014	176	1.00	176	2149	44.9112%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	861290.496
5573540	6/7/2003	175	1.00	175	2151	44.9530%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	856396.8
5573540	6/3/2007	175	1.00	175	2151	44.9530%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	856396.8
5573540	7/26/2003	175	1.00	175	2151	44.9530%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	856396.8
5573540	7/16/2010	175	1.00	175	2151	44.9530%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	856396.8
5573540	8/11/2006	175	1.00	175	2151	44.9530%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	856396.8
5573540	7/30/2015	174	1.00	174	2156	45.0575%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	851503.104
5573540	8/25/2006	174	1.00	174	2156	45.0575%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	851503.104
5573540	10/6/2008	173	1.00	173	2158	45.0993%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	846609.408
5573540	5/29/2015	172	1.00	172	2159	45.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	841715.712
5573540	8/4/2003	172	1.00	172	2159	45.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	841715.712
5573540	8/3/2015	172	1.00	172	2159	45.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	841715.712
5573540	7/15/2010	171	1.00	171	2162	45.1829%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	836822.016

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/6/2009	171	1.00	171	2162	45.1829%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	836822.016
5573540	5/16/1992	170	1.00	170	2164	45.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	831928.32
5573540	6/5/2007	170	1.00	170	2164	45.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	831928.32
5573540	7/31/1990	170	1.00	170	2164	45.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	831928.32
5573540	6/1/2001	168	1.00	168	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	822140.928
5573540	6/4/2007	168	1.00	168	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	822140.928
5573540	7/19/1990	168	1.00	168	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	822140.928
5573540	7/13/1996	168	1.00	168	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	822140.928
5573540	7/20/1998	168	1.00	168	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	822140.928
5573540	7/27/2003	168	1.00	168	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	822140.928
5573540	7/28/2003	168	1.00	168	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	822140.928
5573540	5/23/1997	167	1.00	167	2174	45.4336%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	817247.232
5573540	5/17/2000	167	1.00	167	2174	45.4336%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	817247.232
5573540	6/6/2003	167	1.00	167	2174	45.4336%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	817247.232
5573540	7/29/2009	167	1.00	167	2174	45.4336%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	817247.232
5573540	9/12/2008	167	1.00	167	2174	45.4336%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	817247.232
5573540	7/29/2003	166	1.00	166	2179	45.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	812353.536
5573540	7/30/2003	165	1.00	165	2180	45.5590%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	807459.84
5573540	5/14/2005	164	1.00	164	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	802566.144
5573540	5/7/2015	164	1.00	164	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	802566.144
5573540	7/31/2003	164	1.00	164	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	802566.144
5573540	8/19/1993	164	1.00	164	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	802566.144
5573540	8/3/2009	164	1.00	164	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	802566.144
5573540	8/23/2014	164	1.00	164	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	802566.144
5573540	7/9/1999	163	1.00	163	2187	45.7053%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	797672.448
5573540	5/26/2006	162	1.00	162	2188	45.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	792778.752
5573540	10/8/2000	162	1.00	162	2188	45.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	792778.752
5573540	5/23/2007	161	1.00	161	2190	45.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	787885.056
5573540	6/13/2005	160	1.00	160	2191	45.7889%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	782991.36
5573540	5/4/2003	159	1.00	159	2192	45.8098%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	778097.664
5573540	7/22/2009	159	1.00	159	2192	45.8098%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	778097.664
5573540	7/31/2014	159	1.00	159	2192	45.8098%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	778097.664
5573540	7/29/2015	159	1.00	159	2192	45.8098%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	778097.664
5573540	8/1/1998	159	1.00	159	2192	45.8098%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	778097.664
5573540	5/20/2005	158	1.00	158	2197	45.9143%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	773203.968
5573540	7/22/2010	158	1.00	158	2197	45.9143%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	773203.968
5573540	8/2/1998	158	1.00	158	2197	45.9143%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	773203.968
5573540	6/16/1992	157	1.00	157	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	768310.272
5573540	6/6/2007	157	1.00	157	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	768310.272
5573540	7/25/2009	157	1.00	157	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	768310.272
5573540	8/5/1990	157	1.00	157	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	768310.272
5573540	8/5/2006	157	1.00	157	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	768310.272
5573540	8/2/2015	157	1.00	157	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	768310.272
5573540	6/2/1992	156	1.00	156	2206	46.1024%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	763416.576
5573540	6/28/1993	156	1.00	156	2206	46.1024%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	763416.576
5573540	7/27/2009	156	1.00	156	2206	46.1024%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	763416.576

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/17/2010	155	1.00	155	2209	46.1651%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	758522.88
5573540	5/25/2007	154	1.00	154	2210	46.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	753629.184
5573540	7/19/2013	154	1.00	154	2210	46.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	753629.184
5573540	7/27/2015	154	1.00	154	2210	46.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	753629.184
5573540	8/12/2006	154	1.00	154	2210	46.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	753629.184
5573540	8/27/2006	154	1.00	154	2210	46.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	753629.184
5573540	5/17/1992	153	1.00	153	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	748735.488
5573540	5/30/2005	153	1.00	153	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	748735.488
5573540	6/4/1992	153	1.00	153	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	748735.488
5573540	6/13/2006	153	1.00	153	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	748735.488
5573540	7/26/2009	153	1.00	153	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	748735.488
5573540	7/28/2009	153	1.00	153	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	748735.488
5573540	8/10/2006	152	1.00	152	2221	46.4159%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	743841.792
5573540	9/9/2008	152	1.00	152	2221	46.4159%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	743841.792
5573540	9/21/1992	151	1.00	151	2223	46.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	738948.096
5573540	5/13/1992	150	1.00	150	2224	46.4786%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	734054.4
5573540	5/9/2014	150	1.00	150	2224	46.4786%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	734054.4
5573540	6/21/1994	150	1.00	150	2224	46.4786%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	734054.4
5573540	7/2/2002	150	1.00	150	2224	46.4786%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	734054.4
5573540	8/5/2009	150	1.00	150	2224	46.4786%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	734054.4
5573540	7/10/1995	149	1.00	149	2229	46.5831%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	729160.704
5573540	6/5/2003	148	1.00	148	2230	46.6040%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	724267.008
5573540	5/26/2005	147	1.00	147	2231	46.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	719373.312
5573540	5/31/2005	147	1.00	147	2231	46.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	719373.312
5573540	8/7/2000	146	1.00	146	2233	46.6667%	Fecal_coliform	15000	cfu/100mL	200	283.2	53585971.2	714479.616
5573540	8/11/2014	146	1.00	146	2233	46.6667%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	714479.616
5573540	7/11/1994	145	1.00	145	2235	46.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	709585.92
5573540	7/26/1995	145	1.00	145	2235	46.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	709585.92
5573540	8/24/1990	145	1.00	145	2235	46.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	709585.92
5573540	5/1/2015	144	1.00	144	2238	46.7712%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	704692.224
5573540	6/1/2005	144	1.00	144	2238	46.7712%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	704692.224
5573540	7/3/1994	144	1.00	144	2238	46.7712%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	704692.224
5573540	8/25/1997	144	1.00	144	2238	46.7712%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	704692.224
5573540	6/10/2003	143	1.00	143	2242	46.8548%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	699798.528
5573540	8/1/2003	143	1.00	143	2242	46.8548%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	699798.528
5573540	6/20/1994	142	1.00	142	2244	46.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	694904.832
5573540	6/9/2003	142	1.00	142	2244	46.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	694904.832
5573540	5/29/2005	141	1.00	141	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	690011.136
5573540	7/24/1992	141	1.00	141	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	690011.136
5573540	7/14/1994	141	1.00	141	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	690011.136
5573540	7/25/1995	141	1.00	141	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	690011.136
5573540	8/5/2008	141	1.00	141	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	690011.136
5573540	10/18/2001	141	1.00	141	2246	46.9383%	Fecal_coliform	17000	cfu/100mL	200	283.2	58650946.56	690011.136
5573540	5/7/2005	140	1.00	140	2252	47.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	685117.44
5573540	5/21/2012	140	1.00	140	2252	47.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	685117.44
5573540	5/22/2012	140	1.00	140	2252	47.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	685117.44

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/6/1991	139	1.00	139	2255	47.1264%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	680223.744
5573540	6/8/2003	139	1.00	139	2255	47.1264%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	680223.744
5573540	6/20/2005	139	1.00	139	2255	47.1264%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	680223.744
5573540	8/2/2009	139	1.00	139	2255	47.1264%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	680223.744
5573540	6/21/2006	138	1.00	138	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	675330.048
5573540	7/15/1994	138	1.00	138	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	675330.048
5573540	7/16/1994	138	1.00	138	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	675330.048
5573540	7/14/1996	138	1.00	138	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	675330.048
5573540	7/18/2010	138	1.00	138	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	675330.048
5573540	8/26/2006	138	1.00	138	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	675330.048
5573540	7/17/1994	137	1.00	137	2265	47.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	670436.352
5573540	7/21/2000	137	1.00	137	2265	47.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	670436.352
5573540	7/24/2009	137	1.00	137	2265	47.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	670436.352
5573540	8/6/2006	137	1.00	137	2265	47.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	670436.352
5573540	10/18/2000	137	1.00	137	2265	47.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	670436.352
5573540	9/3/2014	136	1.00	136	2270	47.4399%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	665542.656
5573540	10/16/1992	136	1.00	136	2270	47.4399%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	665542.656
5573540	6/27/1994	135	1.00	135	2272	47.4817%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	660648.96
5573540	7/30/2009	135	1.00	135	2272	47.4817%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	660648.96
5573540	8/10/1998	135	1.00	135	2272	47.4817%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	660648.96
5573540	9/29/2015	135	1.00	135	2272	47.4817%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	660648.96
5573540	6/21/1995	134	1.00	134	2276	47.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	655755.264
5573540	8/1/1990	134	1.00	134	2276	47.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	655755.264
5573540	9/12/1992	134	1.00	134	2276	47.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	655755.264
5573540	5/28/2006	133	1.00	133	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	650861.568
5573540	6/20/1992	133	1.00	133	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	650861.568
5573540	8/4/1990	133	1.00	133	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	650861.568
5573540	8/8/2006	133	1.00	133	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	650861.568
5573540	8/9/2006	133	1.00	133	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	650861.568
5573540	9/29/1992	133	1.00	133	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	650861.568
5573540	10/10/2003	133	1.00	133	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	650861.568
5573540	6/10/1991	132	1.00	132	2286	47.7743%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	645967.872
5573540	9/2/1993	132	1.00	132	2286	47.7743%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	645967.872
5573540	9/12/1997	132	1.00	132	2286	47.7743%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	645967.872
5573540	5/5/1995	131	1.00	131	2289	47.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	641074.176
5573540	5/10/2001	131	1.00	131	2289	47.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	641074.176
5573540	7/24/2007	131	1.00	131	2289	47.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	641074.176
5573540	9/5/2004	131	1.00	131	2289	47.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	641074.176
5573540	6/20/2000	130	1.00	130	2293	47.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	636180.48
5573540	7/5/1994	130	1.00	130	2293	47.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	636180.48
5573540	7/24/2013	130	1.00	130	2293	47.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	636180.48
5573540	9/1/2002	130	1.00	130	2293	47.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	636180.48
5573540	6/18/2006	129	1.00	129	2297	48.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	631286.784
5573540	8/23/1995	129	1.00	129	2297	48.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	631286.784
5573540	9/6/2004	129	1.00	129	2297	48.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	631286.784
5573540	5/9/2000	128	1.00	128	2300	48.0669%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	626393.088

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/2/2005	128	1.00	128	2300	48.0669%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	626393.088
5573540	7/7/2008	128	1.00	128	2300	48.0669%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	626393.088
5573540	7/23/2009	128	1.00	128	2300	48.0669%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	626393.088
5573540	6/22/1994	127	1.00	127	2304	48.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	621499.392
5573540	8/13/1990	127	1.00	127	2304	48.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	621499.392
5573540	8/21/1995	127	1.00	127	2304	48.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	621499.392
5573540	6/23/1994	126	1.00	126	2307	48.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	616605.696
5573540	8/15/2010	126	1.00	126	2307	48.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	616605.696
5573540	8/31/2002	125	1.00	125	2309	48.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	611712
5573540	8/1/2009	125	1.00	125	2309	48.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	611712
5573540	5/17/2005	123	1.00	123	2311	48.2968%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	601924.608
5573540	5/28/2005	123	1.00	123	2311	48.2968%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	601924.608
5573540	10/12/2000	123	1.00	123	2311	48.2968%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	601924.608
5573540	5/24/1994	122	1.00	122	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	597030.912
5573540	5/6/2014	122	1.00	122	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	597030.912
5573540	6/9/2007	122	1.00	122	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	597030.912
5573540	7/5/1992	122	1.00	122	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	597030.912
5573540	9/10/2003	122	1.00	122	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	597030.912
5573540	9/30/2015	122	1.00	122	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	597030.912
5573540	8/15/1998	121	1.00	121	2320	48.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	592137.216
5573540	8/7/2006	121	1.00	121	2320	48.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	592137.216
5573540	9/22/1992	121	1.00	121	2320	48.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	592137.216
5573540	5/20/2001	120	1.00	120	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	587243.52
5573540	6/7/1991	120	1.00	120	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	587243.52
5573540	7/1/1992	120	1.00	120	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	587243.52
5573540	8/16/1992	120	1.00	120	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	587243.52
5573540	9/24/2015	120	1.00	120	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	587243.52
5573540	10/7/2003	120	1.00	120	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	587243.52
5573540	8/13/2006	119	1.00	119	2329	48.6729%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	582349.824
5573540	8/12/2014	119	1.00	119	2329	48.6729%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	582349.824
5573540	5/31/1992	118	1.00	118	2331	48.7147%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	577456.128
5573540	8/6/2015	118	1.00	118	2331	48.7147%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	577456.128
5573540	10/7/1990	118	1.00	118	2331	48.7147%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	577456.128
5573540	5/19/2012	117	1.00	117	2334	48.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	572562.432
5573540	7/25/1998	117	1.00	117	2334	48.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	572562.432
5573540	8/18/1998	117	1.00	117	2334	48.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	572562.432
5573540	9/10/2009	117	1.00	117	2334	48.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	572562.432
5573540	7/25/2007	116	1.00	116	2338	48.8610%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	567668.736
5573540	5/19/2001	115	1.00	115	2339	48.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	562775.04
5573540	5/18/2012	115	1.00	115	2339	48.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	562775.04
5573540	6/8/2007	115	1.00	115	2339	48.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	562775.04
5573540	9/28/1992	114	1.00	114	2342	48.9446%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	557881.344
5573540	5/27/2005	113	1.00	113	2343	48.9655%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	552987.648
5573540	8/25/2014	113	1.00	113	2343	48.9655%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	552987.648
5573540	5/20/2012	112	1.00	112	2345	49.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	548093.952
5573540	7/28/2015	112	1.00	112	2345	49.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	548093.952

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/17/2012	110	1.00	110	2347	49.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	538306.56
5573540	7/13/1991	110	1.00	110	2347	49.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	538306.56
5573540	9/4/2004	110	1.00	110	2347	49.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	538306.56
5573540	10/11/2000	110	1.00	110	2347	49.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	538306.56
5573540	6/17/1991	109	1.00	109	2351	49.1327%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	533412.864
5573540	6/10/2007	109	1.00	109	2351	49.1327%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	533412.864
5573540	8/31/2001	109	1.00	109	2351	49.1327%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	533412.864
5573540	6/18/1992	108	1.00	108	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	528519.168
5573540	6/21/1992	108	1.00	108	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	528519.168
5573540	6/7/2007	108	1.00	108	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	528519.168
5573540	8/7/1991	108	1.00	108	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	528519.168
5573540	8/27/2014	108	1.00	108	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	528519.168
5573540	9/10/2008	108	1.00	108	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	528519.168
5573540	7/12/1991	107	1.00	107	2360	49.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	523625.472
5573540	9/7/2008	107	1.00	107	2360	49.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	523625.472
5573540	5/22/2000	106	1.00	106	2362	49.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	518731.776
5573540	7/20/2000	106	1.00	106	2362	49.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	518731.776
5573540	7/31/2013	106	1.00	106	2362	49.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	518731.776
5573540	8/20/1990	106	1.00	106	2362	49.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	518731.776
5573540	8/1/2013	106	1.00	106	2362	49.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	518731.776
5573540	8/30/2014	106	1.00	106	2362	49.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	518731.776
5573540	9/10/1997	106	1.00	106	2362	49.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	518731.776
5573540	6/7/2006	105	1.00	105	2369	49.5089%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	513838.08
5573540	7/2/1996	105	1.00	105	2369	49.5089%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	513838.08
5573540	9/2/2010	105	1.00	105	2369	49.5089%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	513838.08
5573540	5/24/2007	104	1.00	104	2372	49.5716%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	508944.384
5573540	6/19/1992	104	1.00	104	2372	49.5716%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	508944.384
5573540	7/10/1994	104	1.00	104	2372	49.5716%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	508944.384
5573540	8/5/2000	103	1.00	103	2375	49.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	504050.688
5573540	6/28/1992	102	1.00	102	2376	49.6552%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	499156.992
5573540	6/3/2005	102	1.00	102	2376	49.6552%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	499156.992
5573540	7/27/1995	102	1.00	102	2376	49.6552%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	499156.992
5573540	5/24/2001	101	1.00	101	2379	49.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	494263.296
5573540	6/22/2013	101	1.00	101	2379	49.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	494263.296
5573540	7/19/2006	101	1.00	101	2379	49.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	494263.296
5573540	5/23/2012	100	1.00	100	2382	49.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489369.6
5573540	8/17/1992	100	1.00	100	2382	49.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489369.6
5573540	8/16/1999	100	1.00	100	2382	49.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489369.6
5573540	6/13/1992	99	1.00	99	2385	49.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	484475.904
5573540	7/29/1996	99	1.00	99	2385	49.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	484475.904
5573540	8/31/2014	99	1.00	99	2385	49.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	484475.904
5573540	9/4/2014	99	1.00	99	2385	49.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	484475.904
5573540	7/6/1992	98	1.00	98	2389	49.9269%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	479582.208
5573540	7/18/2013	98	1.00	98	2389	49.9269%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	479582.208
5573540	8/6/1990	98	1.00	98	2389	49.9269%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	479582.208
5573540	9/1/2014	97	1.00	97	2392	49.9896%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	474688.512

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/14/2006	96	1.00	96	2393	50.0104%	Fecal_coliform	1120	cfu/100mL	200	283.2	2630850.97	469794.816
5573540	8/27/1993	96	1.00	96	2393	50.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	469794.816
5573540	5/2/2012	95	1.00	95	2395	50.0522%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	464901.12
5573540	8/23/1990	95	1.00	95	2395	50.0522%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	464901.12
5573540	5/26/2000	94	1.00	94	2397	50.0940%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	460007.424
5573540	7/9/2007	94	1.00	94	2397	50.0940%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	460007.424
5573540	10/12/2001	94	1.00	94	2397	50.0940%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	460007.424
5573540	6/30/1992	93	1.00	93	2400	50.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	455113.728
5573540	7/6/1994	93	1.00	93	2400	50.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	455113.728
5573540	8/30/2001	93	1.00	93	2400	50.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	455113.728
5573540	9/7/2006	93	1.00	93	2400	50.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	455113.728
5573540	9/6/2006	92	1.00	92	2404	50.2403%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	450220.032
5573540	6/2/2001	91	1.00	91	2405	50.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	445326.336
5573540	7/21/2004	91	1.00	91	2405	50.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	445326.336
5573540	7/26/2004	91	1.00	91	2405	50.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	445326.336
5573540	9/13/1992	91	1.00	91	2405	50.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	445326.336
5573540	9/9/2004	91	1.00	91	2405	50.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	445326.336
5573540	9/5/2006	91	1.00	91	2405	50.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	445326.336
5573540	6/1/1992	90	1.00	90	2411	50.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	440432.64
5573540	8/18/1992	90	1.00	90	2411	50.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	440432.64
5573540	7/7/1994	89	1.00	89	2413	50.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	435538.944
5573540	7/8/1994	89	1.00	89	2413	50.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	435538.944
5573540	7/31/2009	89	1.00	89	2413	50.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	435538.944
5573540	7/9/1994	88	1.00	88	2416	50.4911%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	430645.248
5573540	9/2/2002	88	1.00	88	2416	50.4911%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	430645.248
5573540	6/22/2005	87	1.00	87	2418	50.5329%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	425751.552
5573540	8/3/1998	86	1.00	86	2419	50.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	420857.856
5573540	5/9/2007	85	1.00	85	2420	50.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	415964.16
5573540	7/6/2001	85	1.00	85	2420	50.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	415964.16
5573540	7/11/2011	85	1.00	85	2420	50.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	415964.16
5573540	8/8/2008	85	1.00	85	2420	50.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	415964.16
5573540	6/23/2005	84	1.00	84	2424	50.6583%	Fecal_coliform	100	cfu/100mL	200	283.2	205535.232	411070.464
5573540	7/22/1996	84	1.00	84	2424	50.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	411070.464
5573540	7/15/2011	84	1.00	84	2424	50.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	411070.464
5573540	8/10/2015	84	1.00	84	2424	50.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	411070.464
5573540	6/18/1991	83	1.00	83	2428	50.7419%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	406176.768
5573540	10/18/1992	83	1.00	83	2428	50.7419%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	406176.768
5573540	5/18/1992	82	1.00	82	2430	50.7837%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	401283.072
5573540	6/24/2005	82	1.00	82	2430	50.7837%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	401283.072
5573540	9/18/2006	82	1.00	82	2430	50.7837%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	401283.072
5573540	6/3/1993	81	1.00	81	2433	50.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396389.376
5573540	6/25/2005	81	1.00	81	2433	50.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396389.376
5573540	7/5/2006	81	1.00	81	2433	50.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396389.376
5573540	8/20/2014	81	1.00	81	2433	50.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396389.376
5573540	6/3/2001	80	1.00	80	2437	50.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	391495.68
5573540	7/18/1994	80	1.00	80	2437	50.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	391495.68

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/21/1998	80	1.00	80	2437	50.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	391495.68
5573540	7/23/2007	80	1.00	80	2437	50.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	391495.68
5573540	8/19/1992	80	1.00	80	2437	50.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	391495.68
5573540	9/11/2006	80	1.00	80	2437	50.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	391495.68
5573540	6/27/2006	79	1.00	79	2443	51.0554%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	386601.984
5573540	8/8/1993	79	1.00	79	2443	51.0554%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	386601.984
5573540	9/21/2006	79	1.00	79	2443	51.0554%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	386601.984
5573540	8/22/1990	78	1.00	78	2446	51.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	381708.288
5573540	8/6/2009	78	1.00	78	2446	51.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	381708.288
5573540	8/22/2009	78	1.00	78	2446	51.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	381708.288
5573540	8/14/2010	78	1.00	78	2446	51.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	381708.288
5573540	7/11/2006	77	1.00	77	2450	51.2017%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	376814.592
5573540	7/25/2013	77	1.00	77	2450	51.2017%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	376814.592
5573540	8/2/2013	77	1.00	77	2450	51.2017%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	376814.592
5573540	6/17/1995	76	1.00	76	2453	51.2644%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371920.896
5573540	5/16/2012	75	1.00	75	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	367027.2
5573540	6/29/1992	75	1.00	75	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	367027.2
5573540	6/21/2005	75	1.00	75	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	367027.2
5573540	8/23/2009	75	1.00	75	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	367027.2
5573540	9/3/1990	75	1.00	75	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	367027.2
5573540	9/10/2006	75	1.00	75	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	367027.2
5573540	9/22/2006	75	1.00	75	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	367027.2
5573540	5/8/2000	74	1.00	74	2461	51.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	362133.504
5573540	7/30/1998	74	1.00	74	2461	51.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	362133.504
5573540	8/7/2009	74	1.00	74	2461	51.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	362133.504
5573540	8/8/2009	74	1.00	74	2461	51.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	362133.504
5573540	8/9/2009	74	1.00	74	2461	51.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	362133.504
5573540	9/26/2015	74	1.00	74	2461	51.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	362133.504
5573540	5/4/2000	73	1.00	73	2467	51.5569%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	357239.808
5573540	7/14/1991	73	1.00	73	2467	51.5569%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	357239.808
5573540	8/8/2000	73	1.00	73	2467	51.5569%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	357239.808
5573540	9/19/2006	73	1.00	73	2467	51.5569%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	357239.808
5573540	9/20/2006	73	1.00	73	2467	51.5569%	Fecal_coliform	920	cfu/100mL	200	283.2	1643303.117	357239.808
5573540	10/31/1995	73	1.00	73	2467	51.5569%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	357239.808
5573540	6/24/2006	72	1.00	72	2473	51.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352346.112
5573540	6/26/2006	72	1.00	72	2473	51.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352346.112
5573540	8/13/2008	72	1.00	72	2473	51.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352346.112
5573540	9/4/2006	72	1.00	72	2473	51.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352346.112
5573540	9/14/2006	72	1.00	72	2473	51.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352346.112
5573540	9/25/2015	72	1.00	72	2473	51.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	352346.112
5573540	7/22/2004	71	1.00	71	2479	51.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347452.416
5573540	8/14/2006	71	1.00	71	2479	51.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347452.416
5573540	9/28/2015	71	1.00	71	2479	51.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	347452.416
5573540	5/9/2001	70	1.00	70	2482	51.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342558.72
5573540	6/7/2005	70	1.00	70	2482	51.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342558.72
5573540	8/13/2014	70	1.00	70	2482	51.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342558.72

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/15/2006	70	1.00	70	2482	51.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342558.72
5573540	9/16/2006	70	1.00	70	2482	51.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342558.72
5573540	10/27/1995	70	1.00	70	2482	51.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342558.72
5573540	5/31/2012	69	1.00	69	2488	51.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337665.024
5573540	6/25/2006	69	1.00	69	2488	51.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337665.024
5573540	6/28/2006	69	1.00	69	2488	51.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337665.024
5573540	7/27/2013	69	1.00	69	2488	51.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337665.024
5573540	8/21/2006	69	1.00	69	2488	51.9958%	Fecal_coliform	1410	cfu/100mL	200	283.2	2380538.419	337665.024
5573540	8/11/2015	69	1.00	69	2488	51.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337665.024
5573540	10/20/1995	69	1.00	69	2488	51.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	337665.024
5573540	7/12/1999	68	1.00	68	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332771.328
5573540	8/22/2006	68	1.00	68	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332771.328
5573540	9/12/2006	68	1.00	68	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332771.328
5573540	9/13/2006	68	1.00	68	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332771.328
5573540	9/17/2006	68	1.00	68	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332771.328
5573540	9/1/2012	68	1.00	68	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332771.328
5573540	10/31/1993	68	1.00	68	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332771.328
5573540	5/14/2012	67	1.00	67	2502	52.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	327877.632
5573540	8/14/1990	67	1.00	67	2502	52.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	327877.632
5573540	8/12/2008	67	1.00	67	2502	52.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	327877.632
5573540	6/1/1994	66	1.00	66	2505	52.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	322983.936
5573540	7/24/1995	66	1.00	66	2505	52.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	322983.936
5573540	7/26/2013	66	1.00	66	2505	52.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	322983.936
5573540	6/27/1993	65	1.00	65	2508	52.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	318090.24
5573540	6/29/2006	65	1.00	65	2508	52.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	318090.24
5573540	6/30/2006	64	1.00	64	2510	52.4556%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	313196.544
5573540	7/11/1999	64	1.00	64	2510	52.4556%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	313196.544
5573540	7/6/2006	64	1.00	64	2510	52.4556%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	313196.544
5573540	9/11/2008	64	1.00	64	2510	52.4556%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	313196.544
5573540	6/26/2005	63	1.00	63	2514	52.5392%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	308302.848
5573540	5/4/2012	62	1.00	62	2515	52.5601%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	303409.152
5573540	6/27/1992	62	1.00	62	2515	52.5601%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	303409.152
5573540	6/6/2005	62	1.00	62	2515	52.5601%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	303409.152
5573540	7/7/1996	62	1.00	62	2515	52.5601%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	303409.152
5573540	8/11/2003	62	1.00	62	2515	52.5601%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	303409.152
5573540	9/13/1997	62	1.00	62	2515	52.5601%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	303409.152
5573540	5/14/2001	61	1.00	61	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298515.456
5573540	7/19/2000	61	1.00	61	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298515.456
5573540	8/3/2013	61	1.00	61	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298515.456
5573540	8/18/2014	61	1.00	61	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298515.456
5573540	9/9/2006	61	1.00	61	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298515.456
5573540	9/27/2015	61	1.00	61	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298515.456
5573540	6/8/2005	60	1.00	60	2527	52.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293621.76
5573540	7/15/1996	60	1.00	60	2527	52.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293621.76
5573540	7/8/2002	60	1.00	60	2527	52.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293621.76
5573540	9/24/2006	60	1.00	60	2527	52.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293621.76

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/28/1995	60	1.00	60	2527	52.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293621.76
5573540	7/21/1997	59	1.00	59	2532	52.9154%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288728.064
5573540	7/5/2001	59	1.00	59	2532	52.9154%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288728.064
5573540	8/3/1990	59	1.00	59	2532	52.9154%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288728.064
5573540	8/26/2014	59	1.00	59	2532	52.9154%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288728.064
5573540	9/8/2006	59	1.00	59	2532	52.9154%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288728.064
5573540	10/21/2009	59	1.00	59	2532	52.9154%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288728.064
5573540	9/23/2006	58	1.00	58	2538	53.0408%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283834.368
5573540	10/5/2000	58	1.00	58	2538	53.0408%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283834.368
5573540	8/14/2008	57	1.00	57	2540	53.0825%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278940.672
5573540	8/3/2010	57	1.00	57	2540	53.0825%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278940.672
5573540	6/11/2007	56	1.00	56	2542	53.1243%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274046.976
5573540	8/24/2009	56	1.00	56	2542	53.1243%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274046.976
5573540	8/10/2009	55	1.00	55	2544	53.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269153.28
5573540	9/2/1990	55	1.00	55	2544	53.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269153.28
5573540	9/11/2003	55	1.00	55	2544	53.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269153.28
5573540	10/16/2001	55	1.00	55	2544	53.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269153.28
5573540	10/29/2001	55	1.00	55	2544	53.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269153.28
5573540	10/19/2004	55	1.00	55	2544	53.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269153.28
5573540	8/6/1991	54	1.00	54	2550	53.2915%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264259.584
5573540	9/12/2003	54	1.00	54	2550	53.2915%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264259.584
5573540	9/26/2006	54	1.00	54	2550	53.2915%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264259.584
5573540	10/29/1995	54	1.00	54	2550	53.2915%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264259.584
5573540	5/5/2010	53	1.00	53	2554	53.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259365.888
5573540	6/11/2005	53	1.00	53	2554	53.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259365.888
5573540	7/21/1996	53	1.00	53	2554	53.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259365.888
5573540	7/29/2000	53	1.00	53	2554	53.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259365.888
5573540	8/5/2010	53	1.00	53	2554	53.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259365.888
5573540	7/19/1999	52	1.00	52	2559	53.4796%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254472.192
5573540	8/2/1990	52	1.00	52	2559	53.4796%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254472.192
5573540	9/5/1997	52	1.00	52	2559	53.4796%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254472.192
5573540	9/5/2014	52	1.00	52	2559	53.4796%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254472.192
5573540	10/30/1995	52	1.00	52	2559	53.4796%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254472.192
5573540	6/3/1992	51	1.00	51	2564	53.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	249578.496
5573540	7/26/2007	51	1.00	51	2564	53.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	249578.496
5573540	7/30/2013	51	1.00	51	2564	53.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	249578.496
5573540	8/6/2010	51	1.00	51	2564	53.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	249578.496
5573540	9/1/1990	51	1.00	51	2564	53.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	249578.496
5573540	9/13/2003	51	1.00	51	2564	53.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	249578.496
5573540	9/25/2006	51	1.00	51	2564	53.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	249578.496
5573540	5/27/2006	50	1.00	50	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	244684.8
5573540	7/10/1999	50	1.00	50	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	244684.8
5573540	8/20/1992	50	1.00	50	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	244684.8
5573540	8/31/2003	50	1.00	50	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	244684.8
5573540	9/14/2003	50	1.00	50	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	244684.8
5573540	9/23/2005	50	1.00	50	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	244684.8

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/21/1995	50	1.00	50	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	244684.8
5573540	10/20/2005	50	1.00	50	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	244684.8
5573540	6/19/1991	49	1.00	49	2579	53.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	239791.104
5573540	7/19/1997	49	1.00	49	2579	53.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	239791.104
5573540	7/9/2001	49	1.00	49	2579	53.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	239791.104
5573540	8/31/1990	49	1.00	49	2579	53.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	239791.104
5573540	8/31/1992	49	1.00	49	2579	53.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	239791.104
5573540	8/15/1995	49	1.00	49	2579	53.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	239791.104
5573540	7/1/2006	48	1.00	48	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	234897.408
5573540	8/15/1990	48	1.00	48	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	234897.408
5573540	8/4/1998	48	1.00	48	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	234897.408
5573540	10/26/1995	48	1.00	48	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	234897.408
5573540	10/8/2009	48	1.00	48	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	234897.408
5573540	5/5/2004	47	1.00	47	2590	54.1275%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	230003.712
5573540	5/19/2005	47	1.00	47	2590	54.1275%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	230003.712
5573540	6/22/1992	47	1.00	47	2590	54.1275%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	230003.712
5573540	6/22/2007	47	1.00	47	2590	54.1275%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	230003.712
5573540	8/19/1998	47	1.00	47	2590	54.1275%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	230003.712
5573540	8/4/2010	47	1.00	47	2590	54.1275%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	230003.712
5573540	8/7/2010	47	1.00	47	2590	54.1275%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	230003.712
5573540	6/8/1991	46	1.00	46	2597	54.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	225110.016
5573540	6/5/2005	46	1.00	46	2597	54.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	225110.016
5573540	6/23/2006	46	1.00	46	2597	54.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	225110.016
5573540	8/9/1991	46	1.00	46	2597	54.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	225110.016
5573540	8/5/2015	46	1.00	46	2597	54.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	225110.016
5573540	9/5/2009	46	1.00	46	2597	54.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	225110.016
5573540	5/18/2001	45	1.00	45	2603	54.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	220216.32
5573540	7/4/2006	45	1.00	45	2603	54.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	220216.32
5573540	8/8/2010	45	1.00	45	2603	54.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	220216.32
5573540	5/2/1990	44	1.00	44	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	215322.624
5573540	6/20/2001	44	1.00	44	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	215322.624
5573540	7/7/2006	44	1.00	44	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	215322.624
5573540	9/4/1990	44	1.00	44	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	215322.624
5573540	9/11/1997	44	1.00	44	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	215322.624
5573540	9/10/2004	44	1.00	44	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	215322.624
5573540	9/25/2005	44	1.00	44	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	215322.624
5573540	10/11/2001	44	1.00	44	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	215322.624
5573540	10/16/2006	44	1.00	44	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	215322.624
5573540	10/20/2004	43	1.00	43	2615	54.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	210428.928
5573540	6/17/2006	42	1.00	42	2616	54.6708%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	205535.232
5573540	7/30/2000	42	1.00	42	2616	54.6708%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	205535.232
5573540	9/2/1997	42	1.00	42	2616	54.6708%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	205535.232
5573540	10/29/1998	42	1.00	42	2616	54.6708%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	205535.232
5573540	10/31/2013	42	1.00	42	2616	54.6708%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	205535.232
5573540	5/18/2005	41	1.00	41	2621	54.7753%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	200641.536
5573540	8/29/2009	41	1.00	41	2621	54.7753%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	200641.536

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/15/2003	41	1.00	41	2621	54.7753%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	200641.536
5573540	10/1/2015	41	1.00	41	2621	54.7753%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	200641.536
5573540	6/4/2005	40	1.00	40	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	195747.84
5573540	7/29/1999	40	1.00	40	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	195747.84
5573540	7/22/2000	40	1.00	40	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	195747.84
5573540	8/28/1998	40	1.00	40	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	195747.84
5573540	9/11/2004	40	1.00	40	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	195747.84
5573540	9/12/2004	40	1.00	40	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	195747.84
5573540	10/25/1995	40	1.00	40	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	195747.84
5573540	10/31/2006	40	1.00	40	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	195747.84
5573540	7/30/2010	39	1.00	39	2633	55.0261%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	190854.144
5573540	9/4/2009	39	1.00	39	2633	55.0261%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	190854.144
5573540	9/10/2014	39	1.00	39	2633	55.0261%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	190854.144
5573540	5/7/2000	38	1.00	38	2636	55.0888%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	185960.448
5573540	7/28/2013	38	1.00	38	2636	55.0888%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	185960.448
5573540	10/5/1991	38	1.00	38	2636	55.0888%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	185960.448
5573540	10/13/2001	38	1.00	38	2636	55.0888%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	185960.448
5573540	6/28/1994	37	1.00	37	2640	55.1724%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	181066.752
5573540	7/30/1996	37	1.00	37	2640	55.1724%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	181066.752
5573540	7/2/2006	37	1.00	37	2640	55.1724%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	181066.752
5573540	8/9/1990	37	1.00	37	2640	55.1724%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	181066.752
5573540	8/11/1998	37	1.00	37	2640	55.1724%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	181066.752
5573540	10/22/1995	37	1.00	37	2640	55.1724%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	181066.752
5573540	10/24/1995	37	1.00	37	2640	55.1724%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	181066.752
5573540	7/16/1997	36	1.00	36	2647	55.3187%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	176173.056
5573540	7/25/2000	36	1.00	36	2647	55.3187%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	176173.056
5573540	8/25/2009	36	1.00	36	2647	55.3187%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	176173.056
5573540	9/19/2005	36	1.00	36	2647	55.3187%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	176173.056
5573540	9/20/2015	36	1.00	36	2647	55.3187%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	176173.056
5573540	5/6/2004	35	1.00	35	2652	55.4232%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	171279.36
5573540	10/30/1998	35	1.00	35	2652	55.4232%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	171279.36
5573540	10/21/2005	35	1.00	35	2652	55.4232%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	171279.36
5573540	7/16/1996	34	1.00	34	2655	55.4859%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	166385.664
5573540	7/8/2006	34	1.00	34	2655	55.4859%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	166385.664
5573540	8/11/2008	34	1.00	34	2655	55.4859%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	166385.664
5573540	8/21/2009	34	1.00	34	2655	55.4859%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	166385.664
5573540	10/14/2001	34	1.00	34	2655	55.4859%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	166385.664
5573540	10/6/2003	34	1.00	34	2655	55.4859%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	166385.664
5573540	6/1/2012	33	1.00	33	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	161491.968
5573540	7/8/1996	33	1.00	33	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	161491.968
5573540	7/9/2006	33	1.00	33	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	161491.968
5573540	8/17/1999	33	1.00	33	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	161491.968
5573540	8/9/2015	33	1.00	33	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	161491.968
5573540	9/16/2003	33	1.00	33	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	161491.968
5573540	10/19/1995	33	1.00	33	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	161491.968
5573540	10/6/1998	33	1.00	33	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	161491.968

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/28/1998	33	1.00	33	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	161491.968
5573540	10/8/1999	33	1.00	33	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	161491.968
5573540	10/14/2003	33	1.00	33	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	161491.968
5573540	7/8/2003	32	1.00	32	2672	55.8412%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	156598.272
5573540	8/22/2015	32	1.00	32	2672	55.8412%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	156598.272
5573540	9/9/1992	32	1.00	32	2672	55.8412%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	156598.272
5573540	10/23/1995	32	1.00	32	2672	55.8412%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	156598.272
5573540	6/4/2012	31	1.00	31	2676	55.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	151704.576
5573540	7/12/1996	31	1.00	31	2676	55.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	151704.576
5573540	8/13/1998	31	1.00	31	2676	55.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	151704.576
5573540	8/18/2001	31	1.00	31	2676	55.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	151704.576
5573540	8/23/2015	31	1.00	31	2676	55.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	151704.576
5573540	7/11/1995	30	1.00	30	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	146810.88
5573540	7/12/2005	30	1.00	30	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	146810.88
5573540	9/27/2006	30	1.00	30	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	146810.88
5573540	10/20/2003	30	1.00	30	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	146810.88
5573540	6/9/2005	29	1.00	29	2685	56.1129%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	141917.184
5573540	7/13/1999	29	1.00	29	2685	56.1129%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	141917.184
5573540	7/3/2006	29	1.00	29	2685	56.1129%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	141917.184
5573540	8/24/1995	29	1.00	29	2685	56.1129%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	141917.184
5573540	9/14/1997	29	1.00	29	2685	56.1129%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	141917.184
5573540	9/7/2012	29	1.00	29	2685	56.1129%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	141917.184
5573540	10/18/1995	29	1.00	29	2685	56.1129%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	141917.184
5573540	6/27/2005	28	1.00	28	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	137023.488
5573540	7/28/1998	28	1.00	28	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	137023.488
5573540	7/18/2005	28	1.00	28	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	137023.488
5573540	8/8/1990	28	1.00	28	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	137023.488
5573540	8/29/1998	28	1.00	28	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	137023.488
5573540	8/15/2006	28	1.00	28	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	137023.488
5573540	8/16/2012	28	1.00	28	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	137023.488
5573540	9/17/2003	28	1.00	28	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	137023.488
5573540	9/28/2006	28	1.00	28	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	137023.488
5573540	10/21/1992	28	1.00	28	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	137023.488
5573540	5/6/1995	27	1.00	27	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	132129.792
5573540	5/25/2001	27	1.00	27	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	132129.792
5573540	5/26/2001	27	1.00	27	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	132129.792
5573540	5/7/2014	27	1.00	27	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	132129.792
5573540	6/23/1991	27	1.00	27	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	132129.792
5573540	7/27/2004	27	1.00	27	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	132129.792
5573540	8/26/1997	27	1.00	27	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	132129.792
5573540	9/18/2003	27	1.00	27	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	132129.792
5573540	10/17/1995	27	1.00	27	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	132129.792
5573540	6/19/2007	26	1.00	26	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	127236.096
5573540	6/5/2012	26	1.00	26	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	127236.096
5573540	7/22/1997	26	1.00	26	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	127236.096
5573540	7/10/2001	26	1.00	26	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	127236.096

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/14/2001	26	1.00	26	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	127236.096
5573540	8/17/1990	26	1.00	26	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	127236.096
5573540	8/29/1993	26	1.00	26	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	127236.096
5573540	8/17/1998	26	1.00	26	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	127236.096
5573540	8/12/2009	26	1.00	26	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	127236.096
5573540	8/2/2010	26	1.00	26	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	127236.096
5573540	9/28/1999	26	1.00	26	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	127236.096
5573540	9/29/1999	26	1.00	26	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	127236.096
5573540	9/19/2003	26	1.00	26	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	127236.096
5573540	10/3/1992	26	1.00	26	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	127236.096
5573540	10/15/1995	26	1.00	26	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	127236.096
5573540	10/16/1995	26	1.00	26	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	127236.096
5573540	6/26/1992	25	1.00	25	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	122342.4
5573540	6/10/2005	25	1.00	25	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	122342.4
5573540	6/20/2007	25	1.00	25	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	122342.4
5573540	7/15/1991	25	1.00	25	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	122342.4
5573540	8/15/2008	25	1.00	25	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	122342.4
5573540	8/11/2010	25	1.00	25	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	122342.4
5573540	9/26/2003	25	1.00	25	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	122342.4
5573540	10/14/1995	25	1.00	25	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	122342.4
5573540	10/11/2003	25	1.00	25	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	122342.4
5573540	5/21/1992	24	1.00	24	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	117448.704
5573540	6/28/2001	24	1.00	24	2736	57.1787%	Fecal_coliform	220	cfu/100mL	200	283.2	129193.5744	117448.704
5573540	6/6/2012	24	1.00	24	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	117448.704
5573540	7/17/1996	24	1.00	24	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	117448.704
5573540	8/23/1997	24	1.00	24	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	117448.704
5573540	8/17/2006	24	1.00	24	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	117448.704
5573540	8/26/2009	24	1.00	24	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	117448.704
5573540	9/5/1990	24	1.00	24	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	117448.704
5573540	9/24/2000	24	1.00	24	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	117448.704
5573540	9/20/2003	24	1.00	24	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	117448.704
5573540	9/11/2009	24	1.00	24	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	117448.704
5573540	10/4/1991	24	1.00	24	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	117448.704
5573540	5/24/2012	23	1.00	23	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	112555.008
5573540	5/30/2012	23	1.00	23	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	112555.008
5573540	5/8/2014	23	1.00	23	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	112555.008
5573540	6/23/1992	23	1.00	23	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	112555.008
5573540	6/24/1992	23	1.00	23	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	112555.008
5573540	7/16/1999	23	1.00	23	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	112555.008
5573540	7/15/2005	23	1.00	23	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	112555.008
5573540	8/7/1990	23	1.00	23	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	112555.008
5573540	8/11/2009	23	1.00	23	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	112555.008
5573540	8/19/2009	23	1.00	23	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	112555.008
5573540	8/10/2010	23	1.00	23	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	112555.008
5573540	8/22/2010	23	1.00	23	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	112555.008
5573540	9/15/1997	23	1.00	23	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	112555.008

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/21/2003	23	1.00	23	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	112555.008
5573540	9/13/2004	23	1.00	23	2748	57.4295%	Fecal_coliform	50	cfu/100mL	200	283.2	28138.752	112555.008
5573540	10/17/2001	23	1.00	23	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	112555.008
5573540	6/25/1992	22	1.00	22	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	107661.312
5573540	7/9/1996	22	1.00	22	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	107661.312
5573540	7/22/2007	22	1.00	22	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	107661.312
5573540	7/29/2013	22	1.00	22	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	107661.312
5573540	8/12/2010	22	1.00	22	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	107661.312
5573540	8/5/2012	22	1.00	22	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	107661.312
5573540	9/22/2003	22	1.00	22	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	107661.312
5573540	9/27/2003	22	1.00	22	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	107661.312
5573540	10/20/1992	22	1.00	22	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	107661.312
5573540	10/13/1995	22	1.00	22	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	107661.312
5573540	10/10/2001	22	1.00	22	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	107661.312
5573540	10/31/2003	22	1.00	22	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	107661.312
5573540	10/22/2012	22	1.00	22	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	107661.312
5573540	6/18/1995	21	1.00	21	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	102767.616
5573540	7/20/1999	21	1.00	21	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	102767.616
5573540	7/16/2011	21	1.00	21	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	102767.616
5573540	8/25/1990	21	1.00	21	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	102767.616
5573540	8/5/2004	21	1.00	21	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	102767.616
5573540	8/20/2009	21	1.00	21	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	102767.616
5573540	8/28/2009	21	1.00	21	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	102767.616
5573540	8/4/2013	21	1.00	21	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	102767.616
5573540	8/14/2015	21	1.00	21	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	102767.616
5573540	9/27/2011	21	1.00	21	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	102767.616
5573540	10/12/2004	21	1.00	21	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	102767.616
5573540	10/23/2012	21	1.00	21	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	102767.616
5573540	7/10/1996	20	1.00	20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	97873.92
5573540	7/18/1996	20	1.00	20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	97873.92
5573540	7/10/2007	20	1.00	20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	97873.92
5573540	8/19/1990	20	1.00	20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	97873.92
5573540	8/30/1997	20	1.00	20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	97873.92
5573540	8/13/2009	20	1.00	20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	97873.92
5573540	8/27/2009	20	1.00	20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	97873.92
5573540	10/12/1995	20	1.00	20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	97873.92
5573540	10/21/2003	20	1.00	20	2789	58.2863%	Fecal_coliform	1000	cfu/100mL	200	283.2	489369.6	97873.92
5573540	10/30/2003	20	1.00	20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	97873.92
5573540	10/18/2004	20	1.00	20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	97873.92
5573540	10/7/2005	20	1.00	20	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	97873.92
5573540	6/28/2005	19	1.00	19	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	92980.224
5573540	6/21/2007	19	1.00	19	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	92980.224
5573540	7/19/1994	19	1.00	19	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	92980.224
5573540	7/11/1996	19	1.00	19	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	92980.224
5573540	7/26/2000	19	1.00	19	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	92980.224
5573540	7/5/2005	19	1.00	19	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	92980.224

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/20/2006	19	1.00	19	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	92980.224
5573540	7/13/2011	19	1.00	19	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	92980.224
5573540	8/16/2006	19	1.00	19	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	92980.224
5573540	8/21/2010	19	1.00	19	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	92980.224
5573540	8/21/2015	19	1.00	19	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	92980.224
5573540	9/30/1992	19	1.00	19	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	92980.224
5573540	9/23/2003	19	1.00	19	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	92980.224
5573540	9/29/2006	19	1.00	19	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	92980.224
5573540	10/2/1992	19	1.00	19	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	92980.224
5573540	10/4/1992	19	1.00	19	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	92980.224
5573540	10/11/1995	19	1.00	19	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	92980.224
5573540	10/26/2003	19	1.00	19	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	92980.224
5573540	10/28/2003	19	1.00	19	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	92980.224
5573540	10/29/2003	19	1.00	19	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	92980.224
5573540	6/3/2012	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	7/28/1995	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	7/19/1996	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	7/31/2010	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	8/20/1998	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	8/24/1999	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	8/18/2000	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	8/2/2001	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	8/29/2003	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	8/6/2004	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	8/20/2004	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	8/9/2010	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	8/13/2010	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	8/23/2010	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	8/24/2015	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	9/1/1992	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	9/24/2003	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	9/28/2003	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	9/22/2010	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	10/7/1995	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	10/9/1995	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	10/10/1995	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	10/15/2001	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	10/22/2001	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	10/27/2003	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	10/31/2005	18	1.00	18	2821	58.9551%	Fecal_coliform	1430	cfu/100mL	200	283.2	629818.6752	88086.528
5573540	10/14/2012	18	1.00	18	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	88086.528
5573540	6/15/1991	17	1.00	17	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	83192.832
5573540	7/20/1996	17	1.00	17	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	83192.832
5573540	7/31/2000	17	1.00	17	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	83192.832
5573540	7/26/2006	17	1.00	17	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	83192.832
5573540	7/12/2011	17	1.00	17	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	83192.832

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/29/1991	17	1.00	17	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	83192.832
5573540	8/17/2000	17	1.00	17	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	83192.832
5573540	8/12/2005	17	1.00	17	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	83192.832
5573540	9/1/2001	17	1.00	17	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	83192.832
5573540	9/3/2002	17	1.00	17	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	83192.832
5573540	9/3/2008	17	1.00	17	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	83192.832
5573540	10/5/1992	17	1.00	17	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	83192.832
5573540	10/6/1995	17	1.00	17	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	83192.832
5573540	10/8/1995	17	1.00	17	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	83192.832
5573540	10/12/2003	17	1.00	17	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	83192.832
5573540	10/22/2003	17	1.00	17	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	83192.832
5573540	5/29/2012	16	1.00	16	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	78299.136
5573540	6/11/1991	16	1.00	16	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	78299.136
5573540	7/28/2004	16	1.00	16	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	78299.136
5573540	7/11/2005	16	1.00	16	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	78299.136
5573540	7/10/2006	16	1.00	16	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	78299.136
5573540	7/27/2007	16	1.00	16	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	78299.136
5573540	8/27/1990	16	1.00	16	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	78299.136
5573540	8/21/1992	16	1.00	16	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	78299.136
5573540	8/18/1999	16	1.00	16	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	78299.136
5573540	8/1/2004	16	1.00	16	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	78299.136
5573540	8/2/2004	16	1.00	16	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	78299.136
5573540	8/24/2004	16	1.00	16	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	78299.136
5573540	8/9/2008	16	1.00	16	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	78299.136
5573540	9/6/1990	16	1.00	16	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	78299.136
5573540	9/16/1997	16	1.00	16	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	78299.136
5573540	9/6/2001	16	1.00	16	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	78299.136
5573540	9/26/2005	16	1.00	16	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	78299.136
5573540	9/9/2011	16	1.00	16	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	78299.136
5573540	10/19/2002	16	1.00	16	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	78299.136
5573540	10/25/2003	16	1.00	16	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	78299.136
5573540	6/15/2006	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	7/14/1999	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	7/30/1999	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	7/27/2000	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	7/3/2001	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	7/29/2001	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	7/4/2005	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	7/10/2005	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	8/23/1999	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	8/9/2000	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	8/23/2001	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	8/1/2010	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	8/16/2010	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	8/8/2015	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	9/25/2000	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/25/2003	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	9/29/2003	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	9/30/2003	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	9/14/2004	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	9/21/2012	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	10/17/1992	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	10/19/1998	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	10/20/2000	15	1.00	15	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	73405.44
5573540	6/17/1992	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	6/29/1994	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	6/29/2005	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	6/22/2006	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	7/15/1999	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	7/2/2003	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	7/30/2004	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	7/6/2005	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	7/8/2005	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	7/9/2005	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	7/19/2005	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	8/26/1990	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	8/6/1993	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	8/3/2004	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	8/4/2004	14	1.00	14	2907	60.7524%	Fecal_coliform	200	cfu/100mL	200	283.2	68511.744	68511.744
5573540	8/19/2005	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	9/19/2004	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	9/12/2009	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	9/2/2012	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	10/19/1992	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	10/20/1998	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	10/21/1998	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	10/9/1999	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	10/5/2001	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	10/13/2003	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	10/23/2003	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	10/13/2004	14	1.00	14	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	68511.744
5573540	5/1/2012	13	1.00	13	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	63618.048
5573540	5/15/2012	13	1.00	13	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	63618.048
5573540	6/16/2006	13	1.00	13	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	63618.048
5573540	6/18/2007	13	1.00	13	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	63618.048
5573540	7/23/1997	13	1.00	13	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	63618.048
5573540	7/7/2005	13	1.00	13	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	63618.048
5573540	7/13/2005	13	1.00	13	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	63618.048
5573540	8/2/2000	13	1.00	13	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	63618.048
5573540	8/9/2004	13	1.00	13	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	63618.048
5573540	8/7/2015	13	1.00	13	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	63618.048
5573540	9/18/2004	13	1.00	13	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	63618.048

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/20/2004	13	1.00	13	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	63618.048
5573540	9/30/2006	13	1.00	13	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	63618.048
5573540	10/23/2001	13	1.00	13	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	63618.048
5573540	10/15/2003	13	1.00	13	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	63618.048
5573540	10/24/2003	13	1.00	13	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	63618.048
5573540	10/6/2009	13	1.00	13	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	63618.048
5573540	5/30/1992	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	6/29/2001	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	6/30/2005	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	6/2/2012	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	7/17/1997	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	7/21/1999	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	7/28/2000	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	7/7/2001	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	7/3/2005	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	7/16/2005	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	8/28/1990	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	8/16/1995	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	8/24/1997	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	8/24/2001	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	8/23/2002	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	9/15/2004	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	9/16/2004	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	9/7/2010	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	10/23/1996	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	10/31/1998	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	10/9/2000	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	10/1/2003	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	10/8/2004	12	1.00	12	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58724.352
5573540	6/7/2012	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	6/10/2012	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	7/31/1996	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	7/13/2001	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	7/14/2005	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	7/21/2006	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	8/12/1999	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	8/3/2000	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	8/19/2001	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	8/12/2003	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	8/7/2004	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	8/10/2008	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	8/14/2009	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	8/25/2015	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	9/6/1997	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	9/8/1997	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	9/17/2004	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/15/2005	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	9/13/2009	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	9/25/2012	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	10/6/1992	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	10/4/1995	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	10/22/1996	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	10/18/1998	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	10/27/1998	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	10/18/2002	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	10/23/2002	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	10/16/2003	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	10/12/2007	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	10/18/2012	11	1.00	11	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53830.656
5573540	5/20/1992	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	5/6/2000	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	7/17/2007	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	8/22/1992	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	8/23/1992	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	8/24/1992	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	8/25/1992	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	8/26/1992	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	8/27/1992	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	8/28/1992	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	8/17/1997	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	8/8/2004	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	8/10/2004	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	8/16/2008	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	8/19/2015	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	8/20/2015	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	9/3/1991	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	9/2/2001	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	10/3/1995	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	10/5/1995	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	10/22/1998	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	10/24/2002	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	10/2/2003	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	10/11/2006	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	10/15/2007	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	10/16/2007	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	10/3/2013	10	1.00	10	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48936.96
5573540	6/12/2007	9.9	1.00	10	3031	63.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48447.5904
5573540	7/1/2005	9.9	1.00	10	3031	63.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48447.5904
5573540	8/18/1990	9.9	1.00	10	3031	63.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48447.5904
5573540	9/14/2009	9.9	1.00	10	3031	63.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48447.5904
5573540	10/14/2004	9.9	1.00	10	3031	63.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48447.5904
5573540	6/30/2001	9.8	1.00	10	3036	63.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	47958.2208

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/26/2011	9.8	1.00	10	3036	63.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	47958.2208
5573540	10/17/2012	9.8	1.00	10	3036	63.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	47958.2208
5573540	7/31/2004	9.7	1.00	10	3039	63.5110%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	47468.8512
5573540	7/2/2005	9.7	1.00	10	3039	63.5110%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	47468.8512
5573540	8/17/2014	9.7	1.00	10	3039	63.5110%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	47468.8512
5573540	9/28/2001	9.7	1.00	10	3039	63.5110%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	47468.8512
5573540	8/22/2014	9.6	1.00	10	3043	63.5946%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	46979.4816
5573540	10/17/2003	9.6	1.00	10	3043	63.5946%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	46979.4816
5573540	7/28/2007	9.5	1.00	10	3045	63.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	46490.112
5573540	6/24/1991	9.4	1.00	9	3046	63.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	46000.7424
5573540	7/1/2001	9.4	1.00	9	3046	63.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	46000.7424
5573540	9/9/2001	9.4	1.00	9	3046	63.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	46000.7424
5573540	5/3/2012	9.3	1.00	9	3049	63.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45511.3728
5573540	8/30/1991	9.3	1.00	9	3049	63.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45511.3728
5573540	8/26/2015	9.3	1.00	9	3049	63.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45511.3728
5573540	9/8/2012	9.3	1.00	9	3049	63.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45511.3728
5573540	7/2/2001	9.2	1.00	9	3053	63.8036%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45022.0032
5573540	7/10/2002	9.2	1.00	9	3053	63.8036%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45022.0032
5573540	10/5/2003	9.2	1.00	9	3053	63.8036%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45022.0032
5573540	6/11/2012	9.1	1.00	9	3056	63.8662%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	44532.6336
5573540	7/15/2001	9.1	1.00	9	3056	63.8662%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	44532.6336
5573540	8/21/2014	9.1	1.00	9	3056	63.8662%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	44532.6336
5573540	9/21/2004	9.1	1.00	9	3056	63.8662%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	44532.6336
5573540	10/5/1998	9.1	1.00	9	3056	63.8662%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	44532.6336
5573540	10/29/2002	9	1.00	9	3061	63.9707%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	44043.264
5573540	10/18/2003	9	1.00	9	3061	63.9707%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	44043.264
5573540	9/6/1994	8.9	1.00	9	3063	64.0125%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	43553.8944
5573540	8/19/1999	8.8	1.00	9	3064	64.0334%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	43064.5248
5573540	10/3/2003	8.8	1.00	9	3064	64.0334%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	43064.5248
5573540	8/9/1997	8.7	1.00	9	3066	64.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42575.1552
5573540	10/7/1998	8.7	1.00	9	3066	64.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42575.1552
5573540	7/29/2007	8.6	1.00	9	3068	64.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42085.7856
5573540	8/25/2004	8.6	1.00	9	3068	64.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42085.7856
5573540	8/18/2015	8.6	1.00	9	3068	64.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42085.7856
5573540	7/24/1997	8.5	1.00	9	3071	64.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	41596.416
5573540	8/19/2002	8.5	1.00	9	3071	64.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	41596.416
5573540	9/26/1996	8.5	1.00	9	3071	64.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	41596.416
5573540	9/8/2007	8.5	1.00	9	3071	64.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	41596.416
5573540	9/9/2014	8.5	1.00	9	3071	64.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	41596.416
5573540	10/9/2004	8.5	1.00	9	3071	64.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	41596.416
5573540	10/15/2004	8.5	1.00	9	3071	64.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	41596.416
5573540	7/27/2002	8.4	1.00	8	3078	64.3260%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	41107.0464
5573540	8/18/2004	8.4	1.00	8	3078	64.3260%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	41107.0464
5573540	8/22/2008	8.4	1.00	8	3078	64.3260%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	41107.0464
5573540	10/19/2003	8.4	1.00	8	3078	64.3260%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	41107.0464
5573540	7/16/2002	8.3	1.00	8	3082	64.4096%	Fecal_coliform	50	cfu/100mL	200	283.2	10154.4192	40617.6768

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/14/2012	8.3	1.00	8	3082	64.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40617.6768
5573540	9/9/1997	8.3	1.00	8	3082	64.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40617.6768
5573540	10/6/2001	8.3	1.00	8	3082	64.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40617.6768
5573540	10/4/2003	8.3	1.00	8	3082	64.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40617.6768
5573540	8/10/1991	8.2	1.00	8	3087	64.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40128.3072
5573540	9/7/2001	8.2	1.00	8	3087	64.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40128.3072
5573540	6/17/2007	8.1	1.00	8	3089	64.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39638.9376
5573540	9/14/2005	8.1	1.00	8	3089	64.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39638.9376
5573540	10/25/2002	8.1	1.00	8	3089	64.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39638.9376
5573540	7/29/2004	8	1.00	8	3092	64.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39149.568
5573540	7/26/2005	8	1.00	8	3092	64.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39149.568
5573540	8/20/2010	8	1.00	8	3092	64.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39149.568
5573540	9/4/2011	8	1.00	8	3092	64.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39149.568
5573540	10/30/1991	8	1.00	8	3092	64.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39149.568
5573540	10/23/1998	8	1.00	8	3092	64.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39149.568
5573540	10/5/2012	8	1.00	8	3092	64.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39149.568
5573540	7/11/2007	7.9	1.00	8	3099	64.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38660.1984
5573540	9/1/2010	7.9	1.00	8	3099	64.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38660.1984
5573540	6/19/1995	7.8	1.00	8	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38170.8288
5573540	7/20/1994	7.8	1.00	8	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38170.8288
5573540	7/22/1999	7.8	1.00	8	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38170.8288
5573540	7/31/1999	7.8	1.00	8	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38170.8288
5573540	7/4/2001	7.8	1.00	8	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38170.8288
5573540	9/30/2004	7.8	1.00	8	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38170.8288
5573540	9/28/2005	7.8	1.00	8	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38170.8288
5573540	10/6/2004	7.8	1.00	8	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38170.8288
5573540	10/7/2004	7.8	1.00	8	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38170.8288
5573540	6/17/2012	7.7	1.00	8	3110	64.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37681.4592
5573540	9/3/2011	7.7	1.00	8	3110	64.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37681.4592
5573540	10/5/2004	7.7	1.00	8	3110	64.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37681.4592
5573540	10/18/2007	7.7	1.00	8	3110	64.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37681.4592
5573540	7/18/1997	7.6	1.00	8	3114	65.0784%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37192.0896
5573540	7/25/1997	7.6	1.00	8	3114	65.0784%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37192.0896
5573540	8/27/1997	7.6	1.00	8	3114	65.0784%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37192.0896
5573540	10/13/2011	7.6	1.00	8	3114	65.0784%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37192.0896
5573540	7/11/2001	7.5	1.00	8	3118	65.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36702.72
5573540	7/20/2005	7.5	1.00	8	3118	65.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36702.72
5573540	8/27/2015	7.5	1.00	8	3118	65.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36702.72
5573540	8/28/2015	7.5	1.00	8	3118	65.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36702.72
5573540	9/22/2009	7.5	1.00	8	3118	65.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36702.72
5573540	10/4/2004	7.5	1.00	8	3118	65.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36702.72
5573540	5/19/1992	7.4	1.00	7	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36213.3504
5573540	7/8/2001	7.4	1.00	7	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36213.3504
5573540	8/2/1997	7.4	1.00	7	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36213.3504
5573540	10/6/1991	7.4	1.00	7	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36213.3504
5573540	10/18/1996	7.4	1.00	7	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36213.3504

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/26/1998	7.4	1.00	7	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36213.3504
5573540	10/7/2001	7.4	1.00	7	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36213.3504
5573540	10/1/2004	7.4	1.00	7	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36213.3504
5573540	10/11/2004	7.4	1.00	7	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36213.3504
5573540	8/17/2015	7.3	1.00	7	3133	65.4754%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35723.9808
5573540	10/2/2004	7.3	1.00	7	3133	65.4754%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35723.9808
5573540	10/3/2004	7.3	1.00	7	3133	65.4754%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35723.9808
5573540	8/1/2000	7.2	1.00	7	3136	65.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35234.6112
5573540	10/14/1997	7.2	1.00	7	3136	65.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35234.6112
5573540	9/30/1999	7.1	1.00	7	3138	65.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34745.2416
5573540	9/6/2014	7.1	1.00	7	3138	65.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34745.2416
5573540	7/9/2002	7	1.00	7	3140	65.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34255.872
5573540	7/17/2005	7	1.00	7	3140	65.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34255.872
5573540	8/20/1997	7	1.00	7	3140	65.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34255.872
5573540	10/23/2000	7	1.00	7	3140	65.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34255.872
5573540	10/10/2004	7	1.00	7	3140	65.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34255.872
5573540	7/18/2001	6.9	1.00	7	3145	65.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33766.5024
5573540	9/21/1991	6.9	1.00	7	3145	65.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33766.5024
5573540	9/29/2004	6.9	1.00	7	3145	65.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33766.5024
5573540	10/24/1998	6.9	1.00	7	3145	65.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33766.5024
5573540	10/2/2009	6.9	1.00	7	3145	65.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33766.5024
5573540	7/28/1997	6.8	1.00	7	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33277.1328
5573540	7/30/2007	6.8	1.00	7	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33277.1328
5573540	8/3/1997	6.8	1.00	7	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33277.1328
5573540	8/20/1999	6.8	1.00	7	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33277.1328
5573540	9/22/2004	6.8	1.00	7	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33277.1328
5573540	10/15/1997	6.8	1.00	7	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33277.1328
5573540	10/19/2000	6.8	1.00	7	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33277.1328
5573540	10/9/2001	6.8	1.00	7	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33277.1328
5573540	6/16/1991	6.7	1.00	7	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32787.7632
5573540	7/21/1994	6.7	1.00	7	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32787.7632
5573540	7/26/1997	6.7	1.00	7	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32787.7632
5573540	7/27/1997	6.7	1.00	7	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32787.7632
5573540	8/31/1997	6.7	1.00	7	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32787.7632
5573540	9/18/2001	6.7	1.00	7	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32787.7632
5573540	9/24/2005	6.7	1.00	7	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32787.7632
5573540	9/20/2009	6.7	1.00	7	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32787.7632
5573540	10/26/1991	6.7	1.00	7	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32787.7632
5573540	9/23/2004	6.6	1.00	7	3167	66.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32298.3936
5573540	10/26/1997	6.6	1.00	7	3167	66.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32298.3936
5573540	10/25/1998	6.6	1.00	7	3167	66.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32298.3936
5573540	10/18/2011	6.6	1.00	7	3167	66.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32298.3936
5573540	8/16/1990	6.5	1.00	7	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31809.024
5573540	8/17/2010	6.5	1.00	7	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31809.024
5573540	8/18/2010	6.5	1.00	7	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31809.024
5573540	9/5/1994	6.5	1.00	7	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31809.024

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/11/2015	6.5	1.00	7	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31809.024
5573540	10/31/1991	6.5	1.00	7	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31809.024
5573540	10/13/1997	6.5	1.00	7	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31809.024
5573540	10/27/1997	6.5	1.00	7	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31809.024
5573540	10/4/2000	6.5	1.00	7	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31809.024
5573540	7/11/1991	6.4	1.00	6	3180	66.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31319.6544
5573540	8/1/1997	6.4	1.00	6	3180	66.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31319.6544
5573540	9/20/2005	6.4	1.00	6	3180	66.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31319.6544
5573540	10/16/1997	6.4	1.00	6	3180	66.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31319.6544
5573540	10/8/2001	6.4	1.00	6	3180	66.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31319.6544
5573540	8/10/1993	6.3	1.00	6	3185	66.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30830.2848
5573540	8/10/2000	6.3	1.00	6	3185	66.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30830.2848
5573540	9/17/1997	6.3	1.00	6	3185	66.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30830.2848
5573540	9/19/1997	6.3	1.00	6	3185	66.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30830.2848
5573540	9/3/2001	6.3	1.00	6	3185	66.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30830.2848
5573540	10/27/1991	6.3	1.00	6	3185	66.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30830.2848
5573540	8/17/2004	6.2	1.00	6	3191	66.6876%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30340.9152
5573540	8/19/2004	6.2	1.00	6	3191	66.6876%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30340.9152
5573540	10/17/1997	6.2	1.00	6	3191	66.6876%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30340.9152
5573540	6/13/2007	6.1	1.00	6	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29851.5456
5573540	7/16/2001	6.1	1.00	6	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29851.5456
5573540	7/28/2001	6.1	1.00	6	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29851.5456
5573540	8/25/1995	6.1	1.00	6	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29851.5456
5573540	8/19/1997	6.1	1.00	6	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29851.5456
5573540	8/21/1999	6.1	1.00	6	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29851.5456
5573540	8/21/2004	6.1	1.00	6	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29851.5456
5573540	8/15/2009	6.1	1.00	6	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29851.5456
5573540	9/24/2004	6.1	1.00	6	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29851.5456
5573540	10/18/1997	6.1	1.00	6	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29851.5456
5573540	10/13/2000	6.1	1.00	6	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29851.5456
5573540	6/8/2012	6	1.00	6	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29362.176
5573540	8/25/1999	6	1.00	6	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29362.176
5573540	8/11/2004	6	1.00	6	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29362.176
5573540	8/17/2008	6	1.00	6	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29362.176
5573540	8/16/2009	6	1.00	6	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29362.176
5573540	8/15/2014	6	1.00	6	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29362.176
5573540	9/7/1990	6	1.00	6	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29362.176
5573540	10/19/1997	6	1.00	6	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29362.176
5573540	6/20/1991	5.9	1.00	6	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28872.8064
5573540	7/31/2007	5.9	1.00	6	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28872.8064
5573540	8/7/1999	5.9	1.00	6	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28872.8064
5573540	8/22/1999	5.9	1.00	6	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28872.8064
5573540	8/23/2004	5.9	1.00	6	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28872.8064
5573540	8/19/2010	5.9	1.00	6	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28872.8064
5573540	8/14/2014	5.9	1.00	6	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28872.8064
5573540	9/19/2002	5.9	1.00	6	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28872.8064

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/25/2004	5.9	1.00	6	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28872.8064
5573540	9/15/2009	5.9	1.00	6	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28872.8064
5573540	10/24/2012	5.9	1.00	6	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28872.8064
5573540	7/31/1997	5.8	1.00	6	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28383.4368
5573540	7/21/2007	5.8	1.00	6	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28383.4368
5573540	8/18/1997	5.8	1.00	6	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28383.4368
5573540	8/12/1998	5.8	1.00	6	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28383.4368
5573540	8/17/2009	5.8	1.00	6	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28383.4368
5573540	9/20/1997	5.8	1.00	6	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28383.4368
5573540	9/28/2004	5.8	1.00	6	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28383.4368
5573540	10/4/1990	5.8	1.00	6	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28383.4368
5573540	10/13/2012	5.8	1.00	6	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28383.4368
5573540	6/16/2007	5.7	1.00	6	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27894.0672
5573540	7/29/1997	5.7	1.00	6	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27894.0672
5573540	7/23/1999	5.7	1.00	6	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27894.0672
5573540	8/10/1997	5.7	1.00	6	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27894.0672
5573540	8/1/1999	5.7	1.00	6	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27894.0672
5573540	8/16/2004	5.7	1.00	6	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27894.0672
5573540	8/18/2008	5.7	1.00	6	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27894.0672
5573540	8/16/2014	5.7	1.00	6	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27894.0672
5573540	9/26/2004	5.7	1.00	6	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27894.0672
5573540	9/27/2004	5.7	1.00	6	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27894.0672
5573540	9/18/2011	5.7	1.00	6	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27894.0672
5573540	10/20/1997	5.7	1.00	6	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27894.0672
5573540	10/4/2002	5.7	1.00	6	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27894.0672
5573540	6/12/1991	5.6	1.00	6	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27404.6976
5573540	7/12/2001	5.6	1.00	6	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27404.6976
5573540	9/25/1992	5.6	1.00	6	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27404.6976
5573540	9/29/2001	5.6	1.00	6	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27404.6976
5573540	9/28/2011	5.6	1.00	6	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27404.6976
5573540	10/3/1990	5.6	1.00	6	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27404.6976
5573540	10/21/1997	5.6	1.00	6	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27404.6976
5573540	10/1/2009	5.6	1.00	6	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27404.6976
5573540	10/2/2015	5.6	1.00	6	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27404.6976
5573540	7/29/1998	5.5	1.00	6	3255	68.0251%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26915.328
5573540	8/4/2000	5.5	1.00	6	3255	68.0251%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26915.328
5573540	9/27/1996	5.5	1.00	6	3255	68.0251%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26915.328
5573540	9/4/2001	5.5	1.00	6	3255	68.0251%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26915.328
5573540	9/17/2009	5.5	1.00	6	3255	68.0251%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26915.328
5573540	9/21/2009	5.5	1.00	6	3255	68.0251%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26915.328
5573540	10/26/2012	5.5	1.00	6	3255	68.0251%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26915.328
5573540	7/30/1997	5.4	1.00	5	3262	68.1714%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26425.9584
5573540	7/22/2006	5.4	1.00	5	3262	68.1714%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26425.9584
5573540	8/16/2001	5.4	1.00	5	3262	68.1714%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26425.9584
5573540	8/13/2005	5.4	1.00	5	3262	68.1714%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26425.9584
5573540	9/12/2000	5.4	1.00	5	3262	68.1714%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26425.9584

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/19/2011	5.4	1.00	5	3262	68.1714%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26425.9584
5573540	10/26/2010	5.4	1.00	5	3262	68.1714%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26425.9584
5573540	9/22/2012	5.3	1.00	5	3269	68.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25936.5888
5573540	10/22/1997	5.3	1.00	5	3269	68.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25936.5888
5573540	10/23/1997	5.3	1.00	5	3269	68.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25936.5888
5573540	6/14/2007	5.2	1.00	5	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25447.2192
5573540	6/9/2012	5.2	1.00	5	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25447.2192
5573540	7/21/2005	5.2	1.00	5	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25447.2192
5573540	8/31/1991	5.2	1.00	5	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25447.2192
5573540	8/3/2001	5.2	1.00	5	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25447.2192
5573540	8/25/2001	5.2	1.00	5	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25447.2192
5573540	10/19/1996	5.2	1.00	5	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25447.2192
5573540	10/24/1997	5.2	1.00	5	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25447.2192
5573540	10/3/1999	5.2	1.00	5	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25447.2192
5573540	10/10/1999	5.2	1.00	5	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25447.2192
5573540	10/15/2012	5.2	1.00	5	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25447.2192
5573540	9/26/2000	5.1	1.00	5	3283	68.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24957.8496
5573540	10/29/1991	5.1	1.00	5	3283	68.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24957.8496
5573540	10/28/1997	5.1	1.00	5	3283	68.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24957.8496
5573540	10/10/2006	5.1	1.00	5	3283	68.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24957.8496
5573540	10/3/2015	5.1	1.00	5	3283	68.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24957.8496
5573540	8/16/2002	5	1.00	5	3288	68.7147%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24468.48
5573540	10/25/1997	5	1.00	5	3288	68.7147%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24468.48
5573540	10/7/2009	5	1.00	5	3288	68.7147%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24468.48
5573540	6/15/2007	4.9	1.00	5	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23979.1104
5573540	7/2/1994	4.9	1.00	5	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23979.1104
5573540	7/24/1999	4.9	1.00	5	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23979.1104
5573540	7/17/2001	4.9	1.00	5	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23979.1104
5573540	8/21/1998	4.9	1.00	5	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23979.1104
5573540	8/12/2004	4.9	1.00	5	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23979.1104
5573540	8/15/2004	4.9	1.00	5	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23979.1104
5573540	8/18/2009	4.9	1.00	5	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23979.1104
5573540	9/10/2000	4.9	1.00	5	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23979.1104
5573540	10/28/1991	4.9	1.00	5	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23979.1104
5573540	10/10/1997	4.9	1.00	5	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23979.1104
5573540	10/11/1997	4.9	1.00	5	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23979.1104
5573540	10/12/1997	4.9	1.00	5	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23979.1104
5573540	10/16/2004	4.9	1.00	5	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23979.1104
5573540	8/22/2004	4.8	1.00	5	3305	69.0700%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23489.7408
5573540	8/1/2007	4.8	1.00	5	3305	69.0700%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23489.7408
5573540	9/26/1992	4.8	1.00	5	3305	69.0700%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23489.7408
5573540	9/18/2009	4.8	1.00	5	3305	69.0700%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23489.7408
5573540	7/26/1999	4.7	1.00	5	3309	69.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23000.3712
5573540	7/18/2007	4.7	1.00	5	3309	69.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23000.3712
5573540	8/2/1999	4.7	1.00	5	3309	69.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23000.3712
5573540	9/7/1997	4.7	1.00	5	3309	69.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23000.3712

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/19/2009	4.7	1.00	5	3309	69.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23000.3712
5573540	10/3/2007	4.7	1.00	5	3309	69.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23000.3712
5573540	10/12/2011	4.7	1.00	5	3309	69.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23000.3712
5573540	5/27/2012	4.6	1.00	5	3316	69.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22511.0016
5573540	7/19/2001	4.6	1.00	5	3316	69.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22511.0016
5573540	8/4/1997	4.6	1.00	5	3316	69.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22511.0016
5573540	9/23/2009	4.6	1.00	5	3316	69.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22511.0016
5573540	10/17/1996	4.6	1.00	5	3316	69.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22511.0016
5573540	10/1/2006	4.6	1.00	5	3316	69.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22511.0016
5573540	7/25/1999	4.5	1.00	5	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22021.632
5573540	7/11/2002	4.5	1.00	5	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22021.632
5573540	7/20/2007	4.5	1.00	5	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22021.632
5573540	8/11/1997	4.5	1.00	5	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22021.632
5573540	8/13/2004	4.5	1.00	5	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22021.632
5573540	8/14/2004	4.5	1.00	5	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22021.632
5573540	8/29/2015	4.5	1.00	5	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22021.632
5573540	9/3/1992	4.5	1.00	5	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22021.632
5573540	9/14/1992	4.5	1.00	5	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22021.632
5573540	9/4/2002	4.5	1.00	5	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22021.632
5573540	9/10/2011	4.5	1.00	5	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22021.632
5573540	9/14/2011	4.5	1.00	5	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22021.632
5573540	10/9/1997	4.5	1.00	5	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22021.632
5573540	8/11/2000	4.4	1.00	4	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21532.2624
5573540	8/23/2000	4.4	1.00	4	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21532.2624
5573540	8/4/2001	4.4	1.00	4	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21532.2624
5573540	8/19/2008	4.4	1.00	4	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21532.2624
5573540	9/5/2001	4.4	1.00	4	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21532.2624
5573540	10/29/1997	4.4	1.00	4	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21532.2624
5573540	10/17/2004	4.4	1.00	4	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21532.2624
5573540	7/16/1991	4.3	1.00	4	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21042.8928
5573540	7/20/2001	4.3	1.00	4	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21042.8928
5573540	7/26/2001	4.3	1.00	4	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21042.8928
5573540	7/12/2007	4.3	1.00	4	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21042.8928
5573540	8/8/1999	4.3	1.00	4	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21042.8928
5573540	8/17/2012	4.3	1.00	4	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21042.8928
5573540	9/25/2009	4.3	1.00	4	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21042.8928
5573540	9/7/2014	4.3	1.00	4	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21042.8928
5573540	10/24/1996	4.3	1.00	4	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21042.8928
5573540	10/30/2002	4.3	1.00	4	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21042.8928
5573540	10/31/2002	4.3	1.00	4	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21042.8928
5573540	6/20/1995	4.2	1.00	4	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20553.5232
5573540	6/13/2012	4.2	1.00	4	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20553.5232
5573540	7/17/2011	4.2	1.00	4	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20553.5232
5573540	7/24/2011	4.2	1.00	4	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20553.5232
5573540	8/15/1997	4.2	1.00	4	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20553.5232
5573540	8/3/1999	4.2	1.00	4	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20553.5232

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/27/2003	4.2	1.00	4	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20553.5232
5573540	8/15/2011	4.2	1.00	4	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20553.5232
5573540	8/31/2011	4.2	1.00	4	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20553.5232
5573540	5/28/2012	4.1	1.00	4	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20064.1536
5573540	7/25/2001	4.1	1.00	4	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20064.1536
5573540	7/22/2005	4.1	1.00	4	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20064.1536
5573540	7/25/2006	4.1	1.00	4	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20064.1536
5573540	7/19/2007	4.1	1.00	4	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20064.1536
5573540	8/14/1998	4.1	1.00	4	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20064.1536
5573540	8/27/1999	4.1	1.00	4	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20064.1536
5573540	8/1/2001	4.1	1.00	4	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20064.1536
5573540	8/26/2003	4.1	1.00	4	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20064.1536
5573540	8/16/2011	4.1	1.00	4	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20064.1536
5573540	9/8/1990	4.1	1.00	4	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20064.1536
5573540	9/4/1991	4.1	1.00	4	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20064.1536
5573540	9/26/2009	4.1	1.00	4	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20064.1536
5573540	10/5/1990	4.1	1.00	4	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20064.1536
5573540	10/20/1996	4.1	1.00	4	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20064.1536
5573540	10/4/1999	4.1	1.00	4	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20064.1536
5573540	10/22/2005	4.1	1.00	4	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20064.1536
5573540	10/7/2006	4.1	1.00	4	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20064.1536
5573540	7/21/2001	4	1.00	4	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19574.784
5573540	7/22/2001	4	1.00	4	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19574.784
5573540	7/23/2001	4	1.00	4	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19574.784
5573540	7/30/2001	4	1.00	4	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19574.784
5573540	8/26/1999	4	1.00	4	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19574.784
5573540	8/26/2000	4	1.00	4	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19574.784
5573540	8/24/2010	4	1.00	4	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19574.784
5573540	9/24/2009	4	1.00	4	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19574.784
5573540	10/19/2011	4	1.00	4	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19574.784
5573540	5/5/2000	3.9	1.00	4	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19085.4144
5573540	5/26/2012	3.9	1.00	4	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19085.4144
5573540	7/31/2001	3.9	1.00	4	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19085.4144
5573540	7/13/2007	3.9	1.00	4	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19085.4144
5573540	8/17/1995	3.9	1.00	4	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19085.4144
5573540	8/5/1997	3.9	1.00	4	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19085.4144
5573540	8/6/1997	3.9	1.00	4	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19085.4144
5573540	8/12/1997	3.9	1.00	4	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19085.4144
5573540	8/22/2000	3.9	1.00	4	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19085.4144
5573540	8/13/2001	3.9	1.00	4	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19085.4144
5573540	8/20/2001	3.9	1.00	4	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19085.4144
5573540	8/13/2003	3.9	1.00	4	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19085.4144
5573540	8/20/2003	3.9	1.00	4	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19085.4144
5573540	8/21/2003	3.9	1.00	4	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19085.4144
5573540	8/25/2003	3.9	1.00	4	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19085.4144
5573540	9/21/1997	3.9	1.00	4	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19085.4144

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/11/2010	3.9	1.00	4	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19085.4144
5573540	10/6/2006	3.9	1.00	4	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19085.4144
5573540	10/17/2011	3.9	1.00	4	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19085.4144
5573540	10/27/2015	3.9	1.00	4	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19085.4144
5573540	6/30/1994	3.8	1.00	4	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18596.0448
5573540	7/27/2005	3.8	1.00	4	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18596.0448
5573540	7/18/2011	3.8	1.00	4	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18596.0448
5573540	8/17/1996	3.8	1.00	4	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18596.0448
5573540	8/5/2001	3.8	1.00	4	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18596.0448
5573540	8/14/2001	3.8	1.00	4	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18596.0448
5573540	8/16/2003	3.8	1.00	4	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18596.0448
5573540	8/22/2003	3.8	1.00	4	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18596.0448
5573540	9/17/2002	3.8	1.00	4	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18596.0448
5573540	9/27/2009	3.8	1.00	4	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18596.0448
5573540	9/18/2012	3.8	1.00	4	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18596.0448
5573540	10/3/1991	3.8	1.00	4	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18596.0448
5573540	10/7/1991	3.8	1.00	4	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18596.0448
5573540	10/25/1991	3.8	1.00	4	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18596.0448
5573540	10/30/1997	3.8	1.00	4	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18596.0448
5573540	10/8/2005	3.8	1.00	4	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18596.0448
5573540	10/3/2009	3.8	1.00	4	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18596.0448
5573540	10/20/2011	3.8	1.00	4	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18596.0448
5573540	5/25/2012	3.7	1.00	4	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18106.6752
5573540	7/12/1995	3.7	1.00	4	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18106.6752
5573540	7/24/2001	3.7	1.00	4	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18106.6752
5573540	7/24/2006	3.7	1.00	4	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18106.6752
5573540	8/16/1997	3.7	1.00	4	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18106.6752
5573540	8/4/1999	3.7	1.00	4	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18106.6752
5573540	8/7/2001	3.7	1.00	4	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18106.6752
5573540	8/9/2001	3.7	1.00	4	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18106.6752
5573540	8/12/2001	3.7	1.00	4	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18106.6752
5573540	8/15/2001	3.7	1.00	4	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18106.6752
5573540	8/26/2001	3.7	1.00	4	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18106.6752
5573540	8/14/2003	3.7	1.00	4	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18106.6752
5573540	8/15/2003	3.7	1.00	4	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18106.6752
5573540	8/19/2003	3.7	1.00	4	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18106.6752
5573540	8/24/2003	3.7	1.00	4	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18106.6752
5573540	8/28/2003	3.7	1.00	4	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18106.6752
5573540	8/30/2003	3.7	1.00	4	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18106.6752
5573540	9/8/2014	3.7	1.00	4	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18106.6752
5573540	10/31/1997	3.7	1.00	4	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18106.6752
5573540	10/2/2010	3.7	1.00	4	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18106.6752
5573540	7/27/2001	3.6	1.00	4	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17617.3056
5573540	8/8/1997	3.6	1.00	4	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17617.3056
5573540	8/6/2001	3.6	1.00	4	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17617.3056
5573540	8/8/2001	3.6	1.00	4	3447	72.0376%	Fecal_coliform	540	cfu/100mL	200	283.2	47566.72512	17617.3056

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/10/2001	3.6	1.00	4	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17617.3056
5573540	8/11/2001	3.6	1.00	4	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17617.3056
5573540	8/18/2002	3.6	1.00	4	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17617.3056
5573540	8/14/2005	3.6	1.00	4	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17617.3056
5573540	8/18/2011	3.6	1.00	4	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17617.3056
5573540	9/19/1990	3.6	1.00	4	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17617.3056
5573540	9/4/1992	3.6	1.00	4	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17617.3056
5573540	9/16/2009	3.6	1.00	4	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17617.3056
5573540	10/8/1997	3.6	1.00	4	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17617.3056
5573540	10/8/2006	3.6	1.00	4	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17617.3056
5573540	10/4/2009	3.6	1.00	4	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17617.3056
5573540	6/25/1991	3.5	1.00	4	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17127.936
5573540	8/7/1997	3.5	1.00	4	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17127.936
5573540	8/12/2000	3.5	1.00	4	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17127.936
5573540	8/23/2003	3.5	1.00	4	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17127.936
5573540	8/16/2015	3.5	1.00	4	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17127.936
5573540	9/1/1997	3.5	1.00	4	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17127.936
5573540	9/14/2000	3.5	1.00	4	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17127.936
5573540	9/8/2001	3.5	1.00	4	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17127.936
5573540	9/21/2001	3.5	1.00	4	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17127.936
5573540	9/29/2005	3.5	1.00	4	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17127.936
5573540	10/6/1990	3.5	1.00	4	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17127.936
5573540	10/24/1991	3.5	1.00	4	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17127.936
5573540	10/21/1996	3.5	1.00	4	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17127.936
5573540	10/28/2015	3.5	1.00	4	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17127.936
5573540	7/25/2011	3.4	1.00	3	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16638.5664
5573540	7/27/2011	3.4	1.00	3	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16638.5664
5573540	8/30/1998	3.4	1.00	3	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16638.5664
5573540	8/2/2007	3.4	1.00	3	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16638.5664
5573540	8/31/2010	3.4	1.00	3	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16638.5664
5573540	8/5/2013	3.4	1.00	3	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16638.5664
5573540	9/23/1997	3.4	1.00	3	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16638.5664
5573540	9/24/1997	3.4	1.00	3	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16638.5664
5573540	9/10/2001	3.4	1.00	3	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16638.5664
5573540	9/15/2011	3.4	1.00	3	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16638.5664
5573540	10/7/1997	3.4	1.00	3	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16638.5664
5573540	10/1/1999	3.4	1.00	3	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16638.5664
5573540	10/5/2009	3.4	1.00	3	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16638.5664
5573540	10/4/2013	3.4	1.00	3	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16638.5664
5573540	6/12/2012	3.3	1.00	3	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16149.1968
5573540	8/13/1997	3.3	1.00	3	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16149.1968
5573540	8/5/1999	3.3	1.00	3	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16149.1968
5573540	8/19/2000	3.3	1.00	3	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16149.1968
5573540	8/21/2001	3.3	1.00	3	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16149.1968
5573540	8/22/2001	3.3	1.00	3	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16149.1968
5573540	8/4/2007	3.3	1.00	3	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16149.1968

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/15/2015	3.3	1.00	3	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16149.1968
5573540	8/30/2015	3.3	1.00	3	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16149.1968
5573540	9/5/1992	3.3	1.00	3	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16149.1968
5573540	9/8/1992	3.3	1.00	3	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16149.1968
5573540	9/19/2001	3.3	1.00	3	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16149.1968
5573540	9/10/2013	3.3	1.00	3	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16149.1968
5573540	10/15/1992	3.3	1.00	3	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16149.1968
5573540	10/8/1998	3.3	1.00	3	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16149.1968
5573540	10/17/1998	3.3	1.00	3	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16149.1968
5573540	10/20/2002	3.3	1.00	3	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16149.1968
5573540	10/23/2007	3.3	1.00	3	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16149.1968
5573540	7/23/2005	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	7/14/2007	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	7/19/2011	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	8/6/1999	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	8/9/1999	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	8/10/1999	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	8/28/1999	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	8/13/2000	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	8/24/2000	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	8/17/2001	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	8/27/2001	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	8/29/2001	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	8/22/2005	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	8/20/2008	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	8/25/2010	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	9/24/1992	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	9/25/1999	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	9/26/1999	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	9/28/2009	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	9/12/2011	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	9/8/2013	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	9/8/2015	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	10/7/1992	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	10/8/1992	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	10/26/2002	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	10/9/2006	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	10/25/2010	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	10/30/2013	3.2	1.00	3	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15659.8272
5573540	7/15/2012	3.1	1.00	3	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15170.4576
5573540	8/14/1997	3.1	1.00	3	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15170.4576
5573540	8/29/1999	3.1	1.00	3	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15170.4576
5573540	8/17/2003	3.1	1.00	3	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15170.4576
5573540	8/18/2003	3.1	1.00	3	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15170.4576
5573540	8/26/2010	3.1	1.00	3	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15170.4576
5573540	8/27/2010	3.1	1.00	3	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15170.4576

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/30/2010	3.1	1.00	3	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15170.4576
5573540	8/14/2011	3.1	1.00	3	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15170.4576
5573540	9/6/1992	3.1	1.00	3	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15170.4576
5573540	9/18/1997	3.1	1.00	3	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15170.4576
5573540	9/22/1997	3.1	1.00	3	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15170.4576
5573540	9/12/1999	3.1	1.00	3	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15170.4576
5573540	9/27/1999	3.1	1.00	3	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15170.4576
5573540	9/3/2000	3.1	1.00	3	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15170.4576
5573540	9/9/2013	3.1	1.00	3	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15170.4576
5573540	10/19/1991	3.1	1.00	3	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15170.4576
5573540	10/1/1992	3.1	1.00	3	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15170.4576
5573540	10/13/2007	3.1	1.00	3	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15170.4576
5573540	6/14/2012	3	1.00	3	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14681.088
5573540	7/23/2006	3	1.00	3	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14681.088
5573540	8/11/1999	3	1.00	3	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14681.088
5573540	8/5/2007	3	1.00	3	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14681.088
5573540	8/20/2007	3	1.00	3	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14681.088
5573540	8/30/2011	3	1.00	3	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14681.088
5573540	8/31/2015	3	1.00	3	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14681.088
5573540	9/27/2000	3	1.00	3	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14681.088
5573540	9/29/2009	3	1.00	3	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14681.088
5573540	9/30/2009	3	1.00	3	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14681.088
5573540	9/5/2012	3	1.00	3	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14681.088
5573540	9/26/2012	3	1.00	3	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14681.088
5573540	10/8/1991	3	1.00	3	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14681.088
5573540	10/20/1991	3	1.00	3	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14681.088
5573540	10/23/1991	3	1.00	3	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14681.088
5573540	10/30/1996	3	1.00	3	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14681.088
5573540	10/6/1997	3	1.00	3	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14681.088
5573540	10/1/1998	3	1.00	3	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14681.088
5573540	10/12/2006	3	1.00	3	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14681.088
5573540	10/24/2010	3	1.00	3	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14681.088
5573540	6/16/2012	2.9	1.00	3	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191.7184
5573540	8/14/2000	2.9	1.00	3	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191.7184
5573540	8/15/2000	2.9	1.00	3	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191.7184
5573540	8/16/2000	2.9	1.00	3	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191.7184
5573540	8/27/2000	2.9	1.00	3	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191.7184
5573540	8/29/2000	2.9	1.00	3	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191.7184
5573540	8/28/2010	2.9	1.00	3	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191.7184
5573540	8/17/2011	2.9	1.00	3	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191.7184
5573540	8/29/2011	2.9	1.00	3	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191.7184
5573540	8/12/2015	2.9	1.00	3	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191.7184
5573540	9/9/1990	2.9	1.00	3	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191.7184
5573540	9/21/1990	2.9	1.00	3	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191.7184
5573540	9/7/1992	2.9	1.00	3	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191.7184
5573540	9/23/1992	2.9	1.00	3	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191.7184

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/1/2000	2.9	1.00	3	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191.7184
5573540	9/2/2000	2.9	1.00	3	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191.7184
5573540	9/7/2007	2.9	1.00	3	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191.7184
5573540	9/11/2011	2.9	1.00	3	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191.7184
5573540	10/5/1999	2.9	1.00	3	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191.7184
5573540	10/7/1999	2.9	1.00	3	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191.7184
5573540	10/25/2012	2.9	1.00	3	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14191.7184
5573540	7/24/2005	2.8	1.00	3	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13702.3488
5573540	7/15/2007	2.8	1.00	3	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13702.3488
5573540	8/25/2000	2.8	1.00	3	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13702.3488
5573540	8/28/2000	2.8	1.00	3	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13702.3488
5573540	8/31/2000	2.8	1.00	3	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13702.3488
5573540	8/11/2005	2.8	1.00	3	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13702.3488
5573540	8/23/2008	2.8	1.00	3	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13702.3488
5573540	8/6/2013	2.8	1.00	3	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13702.3488
5573540	9/22/1990	2.8	1.00	3	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13702.3488
5573540	9/24/1999	2.8	1.00	3	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13702.3488
5573540	9/4/2000	2.8	1.00	3	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13702.3488
5573540	9/26/2010	2.8	1.00	3	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13702.3488
5573540	9/1/2015	2.8	1.00	3	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13702.3488
5573540	10/21/1991	2.8	1.00	3	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13702.3488
5573540	10/9/1992	2.8	1.00	3	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13702.3488
5573540	10/5/1997	2.8	1.00	3	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13702.3488
5573540	10/31/1999	2.8	1.00	3	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13702.3488
5573540	5/3/2003	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	7/16/2007	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	7/20/2011	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	8/30/1999	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	8/20/2000	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	8/21/2000	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	8/30/2000	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	8/29/2010	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	8/7/2013	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	8/12/2013	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	9/25/1997	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	9/2/1999	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	9/3/1999	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	9/13/1999	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	9/22/1999	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	9/23/1999	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	9/5/2000	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	9/6/2000	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	9/7/2000	2.7	1.00	3	3613	75.5068%	Fecal_coliform	160	cfu/100mL	200	283.2	10570.38336	13212.9792
5573540	9/11/2001	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	9/27/2005	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	10/22/1991	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/10/1992	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	10/2/1995	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	10/14/1996	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	10/15/1996	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	10/31/1996	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	10/19/2010	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	10/20/2010	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	10/23/2010	2.7	1.00	3	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13212.9792
5573540	7/21/2011	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	7/31/2011	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	8/31/1999	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	8/9/2005	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	8/10/2005	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	8/3/2007	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	8/16/2007	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	8/28/2011	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	8/9/2013	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	8/11/2013	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	8/16/2013	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	8/17/2013	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	9/20/1992	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	9/4/1999	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	9/11/1999	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	9/18/1999	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	9/19/1999	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	9/20/1999	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	9/12/2013	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	9/20/2013	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	10/11/1992	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	10/12/1992	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	10/13/1992	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	10/14/1992	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	10/31/1994	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	10/16/1996	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	10/4/1997	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	10/2/1998	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	10/6/1999	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	10/13/2006	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	10/26/2007	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	10/18/2010	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	10/21/2010	2.6	1.00	3	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12723.6096
5573540	6/15/2012	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	8/3/2005	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	8/4/2005	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	8/8/2005	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	8/21/2008	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/8/2013	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	8/13/2013	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	8/18/2013	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	8/19/2013	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	8/20/2013	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	8/23/2013	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	8/13/2015	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	9/14/1990	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	9/20/1990	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	9/1/1991	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	9/15/1992	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	9/23/1994	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	9/1/1999	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	9/5/1999	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	9/17/1999	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	9/21/1999	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	9/8/2000	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	9/7/2005	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	9/7/2013	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	10/12/1996	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	10/13/1996	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	10/4/1998	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	10/2/1999	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	10/23/2005	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	10/5/2006	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	10/12/2010	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	10/27/2010	2.5	1.00	3	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12234.24
5573540	5/15/2001	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	7/25/2005	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	7/26/2011	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	7/28/2011	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	7/8/2012	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	8/11/1991	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	8/1/1996	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	8/22/2002	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	8/1/2011	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	8/13/2011	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	8/27/2011	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	8/10/2013	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	8/14/2013	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	8/15/2013	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	8/21/2013	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	8/22/2013	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	8/24/2013	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	9/15/1990	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	9/6/1999	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/7/1999	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	9/8/1999	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	9/14/1999	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	9/16/1999	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	9/9/2000	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	9/22/2000	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	9/28/2000	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	9/12/2001	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	9/5/2011	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	9/13/2011	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	9/29/2011	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	9/13/2013	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	9/14/2013	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	10/9/1991	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	10/25/1996	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	10/28/2002	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	10/14/2006	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	10/13/2010	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	10/22/2010	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	10/31/2015	2.4	1.00	2	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11744.8704
5573540	5/1/2001	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	7/17/1991	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	7/30/2011	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	8/28/2001	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	8/2/2005	2.3	1.00	2	3747	78.3072%	Fecal_coliform	340	cfu/100mL	200	283.2	19134.35136	11255.5008
5573540	8/26/2011	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	9/7/1994	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	9/9/1999	2.3	1.00	2	3747	78.3072%	Fecal_coliform	40	cfu/100mL	200	283.2	2251.10016	11255.5008
5573540	9/10/1999	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	9/15/1999	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	9/14/2001	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	9/20/2001	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	9/16/2005	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	9/11/2013	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	9/21/2013	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	10/18/1991	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	10/28/1992	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	10/29/1992	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	10/10/1996	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	10/11/1996	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	10/3/1997	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	10/3/1998	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	10/30/1999	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	10/3/2000	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	10/15/2006	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	10/17/2007	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/11/2010	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	10/4/2015	2.3	1.00	2	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11255.5008
5573540	7/22/2011	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	7/29/2011	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	8/10/1990	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	8/13/1994	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	8/24/1998	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	8/5/2005	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	8/7/2005	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	8/15/2005	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	8/6/2007	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	8/25/2013	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	9/13/1990	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	9/16/1992	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	9/28/1996	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	9/17/2001	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	9/5/2002	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	9/20/2011	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	9/5/2015	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	9/19/2015	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	10/9/1994	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	10/1/1995	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	10/8/1996	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	10/9/1996	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	10/29/1996	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	10/2/2000	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	10/2/2006	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	10/1/2007	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	10/18/2015	2.2	1.00	2	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10766.1312
5573540	6/26/1991	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	8/26/1995	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	8/22/1998	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	8/1/2005	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	8/6/2005	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	8/24/2008	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	8/4/2011	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	8/5/2011	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	8/10/2011	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	8/26/2013	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	8/27/2013	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	8/28/2013	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	9/10/1990	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	9/20/2000	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	9/29/2000	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	9/30/2000	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	9/15/2001	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/16/2001	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	9/22/2001	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	9/26/2007	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	10/15/1991	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	10/16/1991	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	10/17/1991	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	10/27/1992	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	10/26/1996	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	10/27/1996	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	10/1/2000	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	10/29/2005	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	10/15/2010	2.1	1.00	2	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10276.7616
5573540	7/1/1994	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	7/22/1994	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	7/22/2002	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	8/18/2005	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	8/26/2008	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	8/19/2011	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	8/29/2013	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	8/30/2013	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	9/12/1990	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	9/18/1990	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	9/17/1992	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	9/27/1992	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	9/30/1998	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	9/11/2000	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	9/23/2000	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	9/13/2001	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	9/19/2010	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	9/23/2010	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	9/1/2011	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	9/2/2015	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	10/10/1991	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	10/12/1991	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	10/28/1996	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	10/2/1997	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	10/9/1998	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	10/17/1999	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	10/29/1999	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	10/10/2000	2	1.00	2	3831	80.0627%	Fecal_coliform	820	cfu/100mL	200	283.2	40128.3072	9787.392
5573540	10/3/2001	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	10/27/2002	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	10/6/2012	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	10/19/2012	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	10/1/2013	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	10/5/2015	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/6/2015	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	10/26/2015	2	1.00	2	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9787.392
5573540	7/13/1995	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	7/23/2011	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	8/2/1994	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	8/20/2005	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	8/30/2005	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	8/28/2008	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	8/9/2011	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	8/12/2011	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	8/31/2013	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	9/11/1990	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	9/16/1990	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	9/23/1990	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	9/8/1996	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	9/26/1997	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	9/9/2007	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	9/25/2007	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	9/17/2011	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	9/1/2013	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	9/2/2013	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	10/11/1991	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	10/14/1991	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	10/7/1996	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	10/16/1998	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	10/14/2002	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	10/15/2002	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	10/2/2007	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	10/22/2007	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	10/14/2010	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	10/16/2010	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	10/17/2010	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	10/28/2010	1.9	1.00	2	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9298.0224
5573540	7/2/1991	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	7/29/2005	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	8/18/1995	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	8/17/2007	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	8/19/2007	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	8/27/2008	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	8/2/2011	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	8/6/2011	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	8/7/2011	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	8/8/2011	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	8/11/2011	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	9/18/1992	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	9/19/1992	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/13/2000	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	9/21/2000	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	9/30/2005	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	9/28/2007	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	9/25/2010	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	9/3/2013	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	9/16/2013	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	9/3/2015	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	10/13/1991	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	10/11/1999	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	10/18/1999	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	10/22/1999	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	10/28/1999	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	10/4/2001	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	10/16/2002	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	10/17/2002	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	10/19/2007	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	10/29/2015	1.8	1.00	2	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8808.6528
5573540	6/18/2012	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	7/28/2005	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	7/30/2005	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	7/7/2012	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	8/14/2002	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	8/17/2005	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	8/18/2007	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	8/21/2007	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	8/25/2008	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	8/6/2012	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	9/15/2000	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	9/16/2000	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	9/17/2000	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	9/19/2000	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	9/23/2001	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	9/6/2002	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	9/18/2002	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	9/6/2005	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	9/6/2007	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	9/11/2007	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	9/27/2007	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	9/29/2007	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	9/30/2007	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	9/2/2011	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	9/16/2011	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	9/4/2013	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	9/5/2013	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	9/23/2013	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/1/1997	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	10/10/1998	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	10/19/1999	1.7	1.00	2	3929	82.1108%	Fecal_coliform	350	cfu/100mL	200	283.2	14558.7456	8319.2832
5573540	10/23/1999	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	10/27/2007	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	10/3/2010	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	10/29/2010	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	10/31/2010	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	10/24/2015	1.7	1.00	2	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8319.2832
5573540	6/19/2012	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	7/3/1991	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	7/17/2002	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	8/27/1994	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	8/13/2002	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	8/16/2005	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	8/21/2005	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	8/29/2005	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	8/29/2008	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	8/3/2011	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	9/24/1994	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	9/18/2000	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	9/8/2005	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	9/27/2010	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	9/6/2011	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	9/6/2013	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	9/15/2013	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	9/17/2013	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	9/19/2013	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	9/24/2013	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	9/25/2013	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	9/26/2013	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	9/9/2015	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	9/12/2015	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	10/1/1990	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	10/16/1999	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	10/20/1999	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	10/21/1999	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	10/24/1999	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	10/21/2000	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	10/12/2002	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	10/14/2007	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	10/10/2010	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	10/14/2011	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	10/2/2013	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	10/25/2015	1.6	1.00	2	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7829.9136
5573540	5/2/2001	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/6/2001	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	6/27/1991	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	6/20/2012	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	7/7/1991	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	7/18/1991	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	7/31/2005	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	8/23/1998	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	8/15/2002	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	8/25/2005	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	8/26/2005	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	8/31/2005	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	8/11/2007	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	8/12/2007	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	8/15/2007	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	8/23/2007	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	8/24/2007	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	8/30/2008	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	8/31/2008	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	8/25/2011	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	9/24/1990	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	9/5/1991	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	9/1/1994	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	9/30/1995	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	9/27/1997	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	9/29/1998	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	9/10/2007	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	9/1/2008	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	9/8/2010	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	9/21/2010	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	9/25/2011	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	9/18/2013	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	9/22/2013	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	9/28/2013	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	9/30/2013	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	10/26/1992	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	10/8/1994	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	10/11/1998	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	10/15/1998	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	10/25/1999	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	10/26/1999	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	10/27/1999	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	10/14/2000	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	10/13/2002	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	10/28/2005	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	10/3/2006	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	10/9/2007	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/4/2010	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	10/9/2010	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	10/30/2010	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	10/7/2015	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	10/19/2015	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	10/22/2015	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	10/30/2015	1.5	1.00	2	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7340.544
5573540	5/3/2001	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	5/5/2001	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	7/6/1991	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	7/29/1995	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	8/4/1994	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	8/7/2007	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	8/14/2007	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	8/22/2007	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	9/9/1995	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	9/22/1995	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	9/30/1997	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	9/24/2001	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	9/25/2001	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	9/30/2001	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	9/24/2007	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	9/2/2008	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	9/24/2010	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	9/30/2010	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	9/29/2013	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	9/13/2015	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	9/15/2015	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	9/17/2015	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	9/18/2015	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	10/2/1990	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	10/12/1998	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	10/24/2000	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	10/1/2001	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	10/11/2002	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	10/21/2002	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	10/6/2007	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	10/10/2007	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	10/1/2010	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	10/17/2015	1.4	1.00	1	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6851.1744
5573540	5/22/1993	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	5/4/2001	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	8/26/1996	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	8/23/2005	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	8/24/2005	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	8/13/2007	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/25/2007	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	9/17/1990	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	9/25/1990	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	9/8/1995	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	9/26/2001	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	9/1/2005	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	9/5/2005	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	9/9/2010	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	9/12/2010	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	9/20/2010	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	9/7/2011	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	9/27/2013	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	9/4/2015	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	9/6/2015	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	9/10/2015	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	9/16/2015	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	10/13/1998	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	10/14/1998	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	10/15/1999	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	10/5/2007	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	10/11/2007	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	10/20/2007	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	10/5/2010	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	10/8/2010	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	10/27/2012	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	10/5/2013	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	10/13/2015	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	10/14/2015	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	10/21/2015	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	10/23/2015	1.3	1.00	1	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6361.8048
5573540	5/23/1993	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	6/28/1991	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	7/4/1991	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	7/19/1991	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	8/18/1996	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	8/27/2005	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	8/8/2007	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	8/10/2007	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	9/26/1990	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	9/27/1990	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	9/28/1990	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	9/29/1990	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	9/30/1990	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	9/21/1995	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	9/9/1996	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	9/25/1996	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/28/1997	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	9/27/2001	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	9/8/2002	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	9/21/2007	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	9/16/2010	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	9/28/2010	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	9/29/2010	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	9/9/2012	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	10/13/1999	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	10/14/1999	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	10/3/2005	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	10/24/2005	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	10/30/2005	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	10/4/2006	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	10/4/2007	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	10/7/2007	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	10/8/2007	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	10/7/2010	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	10/10/2015	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	10/11/2015	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	10/16/2015	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	10/20/2015	1.2	1.00	1	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5872.4352
5573540	7/1/1991	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	7/8/1991	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	7/23/1995	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	8/12/1990	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	8/12/1991	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	8/5/1994	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	8/9/2007	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	8/20/2011	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	9/10/1991	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	9/29/1995	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	9/29/1997	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	9/13/2005	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	9/17/2005	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	9/5/2007	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	9/12/2007	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	9/15/2007	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	9/23/2007	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	9/10/2010	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	9/13/2010	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	9/17/2010	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	9/24/2011	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	9/17/2012	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	9/7/2015	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	9/14/2015	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/6/1996	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	10/2/2001	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	10/10/2002	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	10/9/2005	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	10/24/2007	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	10/6/2010	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	10/21/2011	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	10/6/2013	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	10/9/2015	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	10/12/2015	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	10/15/2015	1.1	1.00	1	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5383.0656
5573540	5/16/2001	1	1.00	1	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4893.696
5573540	7/5/1991	1	1.00	1	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4893.696
5573540	7/23/1994	1	1.00	1	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4893.696
5573540	9/24/1996	1	1.00	1	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4893.696
5573540	9/9/2002	1	1.00	1	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4893.696
5573540	9/2/2005	1	1.00	1	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4893.696
5573540	9/18/2005	1	1.00	1	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4893.696
5573540	9/16/2007	1	1.00	1	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4893.696
5573540	9/17/2007	1	1.00	1	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4893.696
5573540	9/18/2007	1	1.00	1	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4893.696
5573540	9/20/2007	1	1.00	1	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4893.696
5573540	9/22/2007	1	1.00	1	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4893.696
5573540	9/14/2010	1	1.00	1	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4893.696
5573540	9/21/2011	1	1.00	1	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4893.696
5573540	9/23/2011	1	1.00	1	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4893.696
5573540	10/21/2007	1	1.00	1	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4893.696
5573540	10/16/2012	1	1.00	1	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4893.696
5573540	10/20/2012	1	1.00	1	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4893.696
5573540	10/8/2015	1	1.00	1	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4893.696
5573540	7/12/2002	0.99	1.00	1	4217	88.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4844.75904
5573540	9/7/2002	0.99	1.00	1	4217	88.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4844.75904
5573540	9/8/2011	0.99	1.00	1	4217	88.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4844.75904
5573540	10/7/2013	0.99	1.00	1	4217	88.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4844.75904
5573540	8/14/2012	0.97	1.00	1	4221	88.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4746.88512
5573540	9/2/1991	0.97	1.00	1	4221	88.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4746.88512
5573540	8/20/2002	0.96	1.00	1	4223	88.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4697.94816
5573540	8/24/2011	0.96	1.00	1	4223	88.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4697.94816
5573540	9/18/2010	0.96	1.00	1	4223	88.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4697.94816
5573540	6/27/2012	0.95	1.00	1	4226	88.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4649.0112
5573540	9/23/1995	0.95	1.00	1	4226	88.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4649.0112
5573540	9/15/2010	0.95	1.00	1	4226	88.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4649.0112
5573540	10/1/2005	0.95	1.00	1	4226	88.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4649.0112
5573540	7/20/1991	0.94	1.00	1	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4600.07424
5573540	8/17/2002	0.94	1.00	1	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4600.07424
5573540	8/23/2011	0.94	1.00	1	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4600.07424

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/13/2007	0.94	1.00	1	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4600.07424
5573540	10/28/2007	0.94	1.00	1	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4600.07424
5573540	10/19/2013	0.94	1.00	1	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4600.07424
5573540	6/21/2012	0.93	1.00	1	4236	88.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4551.13728
5573540	6/25/2012	0.93	1.00	1	4236	88.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4551.13728
5573540	8/26/2007	0.93	1.00	1	4236	88.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4551.13728
5573540	9/19/2007	0.93	1.00	1	4236	88.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4551.13728
5573540	10/8/2011	0.93	1.00	1	4236	88.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4551.13728
5573540	8/21/2002	0.92	1.00	1	4241	88.6311%	Fecal_coliform	5500	cfu/100mL	200	283.2	123810.5088	4502.20032
5573540	8/13/2012	0.92	1.00	1	4241	88.6311%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4502.20032
5573540	9/10/1995	0.92	1.00	1	4241	88.6311%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4502.20032
5573540	9/28/1998	0.92	1.00	1	4241	88.6311%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4502.20032
5573540	10/12/1999	0.92	1.00	1	4241	88.6311%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4502.20032
5573540	10/10/2005	0.92	1.00	1	4241	88.6311%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4502.20032
5573540	6/29/1991	0.91	1.00	1	4247	88.7565%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4453.26336
5573540	9/12/2005	0.91	1.00	1	4247	88.7565%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4453.26336
5573540	7/9/1991	0.9	1.00	1	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4404.3264
5573540	7/14/1995	0.9	1.00	1	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4404.3264
5573540	8/27/1995	0.9	1.00	1	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4404.3264
5573540	8/25/1998	0.9	1.00	1	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4404.3264
5573540	8/12/2002	0.9	1.00	1	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4404.3264
5573540	10/25/1992	0.9	1.00	1	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4404.3264
5573540	6/28/2012	0.89	1.00	1	4255	88.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4355.38944
5573540	9/27/2012	0.89	1.00	1	4255	88.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4355.38944
5573540	10/22/2002	0.89	1.00	1	4255	88.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4355.38944
5573540	10/19/2005	0.89	1.00	1	4255	88.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4355.38944
5573540	8/27/1991	0.87	1.00	1	4259	89.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4257.51552
5573540	8/28/1993	0.87	1.00	1	4259	89.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4257.51552
5573540	8/19/1995	0.87	1.00	1	4259	89.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4257.51552
5573540	9/4/2005	0.87	1.00	1	4259	89.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4257.51552
5573540	10/3/2012	0.87	1.00	1	4259	89.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4257.51552
5573540	7/10/1991	0.86	1.00	1	4264	89.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4208.57856
5573540	9/14/2007	0.86	1.00	1	4264	89.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4208.57856
5573540	8/21/2011	0.85	1.00	1	4266	89.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4159.6416
5573540	10/7/2011	0.85	1.00	1	4266	89.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4159.6416
5573540	10/15/2013	0.85	1.00	1	4266	89.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4159.6416
5573540	6/26/2012	0.84	1.00	1	4269	89.2163%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4110.70464
5573540	10/12/2013	0.84	1.00	1	4269	89.2163%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4110.70464
5573540	8/14/1994	0.83	1.00	1	4271	89.2581%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4061.76768
5573540	8/27/2007	0.83	1.00	1	4271	89.2581%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4061.76768
5573540	9/3/2012	0.83	1.00	1	4271	89.2581%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4061.76768
5573540	5/7/2001	0.82	1.00	1	4274	89.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4012.83072
5573540	6/30/1991	0.81	1.00	1	4275	89.3417%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3963.89376
5573540	8/28/2005	0.81	1.00	1	4275	89.3417%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3963.89376
5573540	10/30/2007	0.81	1.00	1	4275	89.3417%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3963.89376
5573540	10/13/2013	0.81	1.00	1	4275	89.3417%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3963.89376

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/22/2012	0.8	1.00	1	4279	89.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3914.9568
5573540	9/20/1995	0.8	1.00	1	4279	89.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3914.9568
5573540	7/21/1991	0.79	1.00	1	4281	89.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3866.01984
5573540	8/28/1991	0.79	1.00	1	4281	89.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3866.01984
5573540	9/4/2007	0.79	1.00	1	4281	89.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3866.01984
5573540	10/9/2002	0.79	1.00	1	4281	89.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3866.01984
5573540	10/29/2007	0.79	1.00	1	4281	89.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3866.01984
5573540	6/24/2012	0.78	1.00	1	4286	89.5716%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3817.08288
5573540	8/28/2007	0.78	1.00	1	4286	89.5716%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3817.08288
5573540	9/21/2005	0.78	1.00	1	4286	89.5716%	Fecal_coliform	43900	cfu/100mL	200	283.2	837849.6922	3817.08288
5573540	7/22/1991	0.77	1.00	1	4289	89.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3768.14592
5573540	7/3/2012	0.77	1.00	1	4289	89.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3768.14592
5573540	7/9/2012	0.77	1.00	1	4289	89.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3768.14592
5573540	10/11/2013	0.77	1.00	1	4289	89.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3768.14592
5573540	7/18/2002	0.76	1.00	1	4293	89.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3719.20896
5573540	8/12/1994	0.76	1.00	1	4293	89.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3719.20896
5573540	10/8/2002	0.76	1.00	1	4293	89.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3719.20896
5573540	10/4/2005	0.76	1.00	1	4293	89.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3719.20896
5573540	9/22/2011	0.75	1.00	1	4297	89.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3670.272
5573540	10/22/1992	0.75	1.00	1	4297	89.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3670.272
5573540	10/6/2011	0.75	1.00	1	4297	89.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3670.272
5573540	10/31/2011	0.75	1.00	1	4297	89.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3670.272
5573540	7/23/1991	0.74	1.00	1	4301	89.8851%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3621.33504
5573540	9/24/1995	0.74	1.00	1	4301	89.8851%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3621.33504
5573540	10/28/2012	0.74	1.00	1	4301	89.8851%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3621.33504
5573540	10/15/2011	0.72	1.00	1	4304	89.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3523.46112
5573540	10/14/2013	0.72	1.00	1	4304	89.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3523.46112
5573540	10/16/2013	0.72	1.00	1	4304	89.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3523.46112
5573540	5/17/2001	0.71	1.00	1	4307	90.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3474.52416
5573540	9/6/1991	0.71	1.00	1	4307	90.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3474.52416
5573540	9/28/1995	0.71	1.00	1	4307	90.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3474.52416
5573540	10/31/2007	0.71	1.00	1	4307	90.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3474.52416
5573540	10/9/2011	0.71	1.00	1	4307	90.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3474.52416
5573540	10/9/2013	0.71	1.00	1	4307	90.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3474.52416
5573540	8/2/1996	0.7	1.00	1	4313	90.1358%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3425.5872
5573540	8/29/2007	0.69	1.00	1	4314	90.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3376.65024
5573540	10/5/2011	0.69	1.00	1	4314	90.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3376.65024
5573540	10/8/2013	0.69	1.00	1	4314	90.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3376.65024
5573540	9/3/2005	0.68	1.00	1	4317	90.2194%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3327.71328
5573540	10/2/1991	0.68	1.00	1	4317	90.2194%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3327.71328
5573540	8/11/1990	0.67	1.00	1	4319	90.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3278.77632
5573540	8/27/1996	0.67	1.00	1	4319	90.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3278.77632
5573540	8/22/2011	0.67	1.00	1	4319	90.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3278.77632
5573540	9/2/2007	0.67	1.00	1	4319	90.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3278.77632
5573540	10/25/2007	0.67	1.00	1	4319	90.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3278.77632
5573540	8/20/1994	0.65	1.00	1	4324	90.3657%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3180.9024

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/27/2012	0.65	1.00	1	4324	90.3657%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3180.9024
5573540	10/10/2013	0.64	1.00	1	4326	90.4075%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3131.96544
5573540	7/16/2012	0.63	1.00	1	4327	90.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3083.02848
5573540	9/25/1995	0.63	1.00	1	4327	90.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3083.02848
5573540	9/29/1996	0.63	1.00	1	4327	90.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3083.02848
5573540	9/1/2007	0.63	1.00	1	4327	90.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3083.02848
5573540	9/3/2007	0.63	1.00	1	4327	90.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3083.02848
5573540	9/9/2005	0.62	1.00	1	4332	90.5329%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3034.09152
5573540	10/31/2012	0.62	1.00	1	4332	90.5329%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3034.09152
5573540	6/23/2012	0.61	1.00	1	4334	90.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2985.15456
5573540	7/1/2012	0.6	1.00	1	4335	90.5956%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2936.2176
5573540	8/18/2012	0.6	1.00	1	4335	90.5956%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2936.2176
5573540	9/11/2005	0.6	1.00	1	4335	90.5956%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2936.2176
5573540	10/29/2013	0.6	1.00	1	4335	90.5956%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2936.2176
5573540	9/10/2005	0.59	1.00	1	4339	90.6792%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2887.28064
5573540	10/7/2002	0.59	1.00	1	4339	90.6792%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2887.28064
5573540	7/23/2002	0.58	1.00	1	4341	90.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2838.34368
5573540	9/6/2012	0.58	1.00	1	4341	90.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2838.34368
5573540	9/23/2012	0.58	1.00	1	4341	90.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2838.34368
5573540	10/2/2005	0.58	1.00	1	4341	90.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2838.34368
5573540	10/21/2012	0.58	1.00	1	4341	90.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2838.34368
5573540	10/22/2011	0.57	1.00	1	4346	90.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2789.40672
5573540	7/24/1991	0.56	1.00	1	4347	90.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2740.46976
5573540	8/13/1991	0.56	1.00	1	4347	90.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2740.46976
5573540	8/7/2012	0.56	1.00	1	4347	90.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2740.46976
5573540	9/11/1991	0.56	1.00	1	4347	90.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2740.46976
5573540	10/11/2011	0.56	1.00	1	4347	90.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2740.46976
5573540	10/4/2012	0.56	1.00	1	4347	90.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2740.46976
5573540	10/17/2013	0.56	1.00	1	4347	90.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2740.46976
5573540	10/6/2005	0.55	1.00	1	4354	90.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2691.5328
5573540	10/11/2005	0.55	1.00	1	4354	90.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2691.5328
5573540	7/26/2002	0.54	1.00	1	4356	91.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2642.59584
5573540	9/27/1998	0.54	1.00	1	4356	91.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2642.59584
5573540	9/19/2012	0.54	1.00	1	4356	91.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2642.59584
5573540	7/4/2012	0.53	1.00	1	4359	91.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2593.65888
5573540	8/30/2007	0.53	1.00	1	4359	91.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2593.65888
5573540	10/28/2013	0.53	1.00	1	4359	91.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2593.65888
5573540	8/3/1994	0.52	1.00	1	4362	91.1599%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2544.72192
5573540	8/31/1998	0.52	1.00	1	4362	91.1599%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2544.72192
5573540	8/31/2007	0.52	1.00	1	4362	91.1599%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2544.72192
5573540	6/29/2012	0.51	1.00	1	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2495.78496
5573540	7/2/2012	0.51	1.00	1	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2495.78496
5573540	10/5/1996	0.51	1.00	1	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2495.78496
5573540	10/7/2012	0.51	1.00	1	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2495.78496
5573540	10/29/2012	0.51	1.00	1	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2495.78496
5573540	10/18/2013	0.51	1.00	1	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2495.78496

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/17/1991	0.5	1.00	1	4371	91.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2446.848
5573540	8/26/1994	0.5	1.00	1	4371	91.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2446.848
5573540	9/27/1995	0.5	1.00	1	4371	91.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2446.848
5573540	10/10/2011	0.5	1.00	1	4371	91.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2446.848
5573540	10/16/2011	0.5	1.00	1	4371	91.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2446.848
5573540	5/2/2003	0.49	1.00	0	4376	91.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2397.91104
5573540	10/4/2011	0.49	1.00	0	4376	91.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2397.91104
5573540	10/30/2012	0.49	1.00	0	4376	91.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2397.91104
5573540	9/10/2012	0.48	1.00	0	4379	91.5152%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2348.97408
5573540	10/5/2005	0.48	1.00	0	4379	91.5152%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2348.97408
5573540	10/27/2013	0.48	1.00	0	4379	91.5152%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2348.97408
5573540	7/19/2002	0.47	1.00	0	4382	91.5778%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2300.03712
5573540	9/30/2011	0.47	1.00	0	4382	91.5778%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2300.03712
5573540	8/11/2002	0.46	1.00	0	4384	91.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2251.10016
5573540	9/20/1991	0.46	1.00	0	4384	91.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2251.10016
5573540	8/26/1998	0.45	1.00	0	4386	91.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2202.1632
5573540	8/19/1991	0.42	1.00	0	4387	91.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2055.35232
5573540	9/19/1995	0.42	1.00	0	4387	91.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2055.35232
5573540	5/8/2001	0.41	1.00	0	4389	91.7241%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2006.41536
5573540	9/23/1996	0.41	1.00	0	4389	91.7241%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2006.41536
5573540	10/1/2011	0.41	1.00	0	4389	91.7241%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2006.41536
5573540	10/23/2011	0.41	1.00	0	4389	91.7241%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2006.41536
5573540	7/25/1991	0.4	1.00	0	4393	91.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1957.4784
5573540	7/5/2012	0.4	1.00	0	4393	91.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1957.4784
5573540	7/6/2012	0.4	1.00	0	4393	91.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1957.4784
5573540	10/30/2000	0.4	1.00	0	4393	91.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1957.4784
5573540	10/2/2011	0.4	1.00	0	4393	91.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1957.4784
5573540	9/7/1991	0.39	1.00	0	4398	91.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1908.54144
5573540	10/25/2005	0.39	1.00	0	4398	91.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1908.54144
5573540	8/15/2012	0.38	1.00	0	4400	91.9540%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1859.60448
5573540	10/6/2002	0.38	1.00	0	4400	91.9540%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1859.60448
5573540	7/13/2002	0.37	1.00	0	4402	91.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1810.66752
5573540	8/14/1991	0.37	1.00	0	4402	91.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1810.66752
5573540	9/7/1995	0.37	1.00	0	4402	91.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1810.66752
5573540	10/8/2012	0.37	1.00	0	4402	91.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1810.66752
5573540	9/17/1995	0.36	1.00	0	4406	92.0794%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1761.73056
5573540	7/24/2002	0.35	1.00	0	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1712.7936
5573540	8/31/2012	0.35	1.00	0	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1712.7936
5573540	9/25/1994	0.35	1.00	0	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1712.7936
5573540	9/26/1994	0.35	1.00	0	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1712.7936
5573540	9/26/1998	0.35	1.00	0	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1712.7936
5573540	10/3/2002	0.35	1.00	0	4407	92.1003%	Fecal_coliform	1100	cfu/100mL	200	283.2	9420.3648	1712.7936
5573540	10/26/2005	0.35	1.00	0	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1712.7936
5573540	10/3/2011	0.35	1.00	0	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1712.7936
5573540	10/9/2012	0.35	1.00	0	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1712.7936
5573540	7/28/2002	0.34	1.00	0	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1663.85664

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/2/1991	0.34	1.00	0	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1663.85664
5573540	8/20/1991	0.34	1.00	0	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1663.85664
5573540	9/8/1994	0.34	1.00	0	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1663.85664
5573540	10/23/1992	0.34	1.00	0	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1663.85664
5573540	10/20/2013	0.34	1.00	0	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1663.85664
5573540	6/30/2012	0.33	1.00	0	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1614.91968
5573540	7/26/1991	0.33	1.00	0	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1614.91968
5573540	7/29/1991	0.33	1.00	0	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1614.91968
5573540	8/16/1991	0.33	1.00	0	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1614.91968
5573540	8/20/1995	0.33	1.00	0	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1614.91968
5573540	8/8/2012	0.33	1.00	0	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1614.91968
5573540	8/26/2012	0.33	1.00	0	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1614.91968
5573540	9/26/1995	0.33	1.00	0	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1614.91968
5573540	10/24/2011	0.33	1.00	0	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1614.91968
5573540	10/29/2011	0.33	1.00	0	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1614.91968
5573540	10/26/2013	0.33	1.00	0	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1614.91968
5573540	7/27/1991	0.32	1.00	0	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1565.98272
5573540	7/10/2012	0.32	1.00	0	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1565.98272
5573540	8/3/1991	0.32	1.00	0	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1565.98272
5573540	8/15/1991	0.32	1.00	0	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1565.98272
5573540	8/28/1995	0.32	1.00	0	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1565.98272
5573540	9/18/1995	0.32	1.00	0	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1565.98272
5573540	10/30/2011	0.32	1.00	0	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1565.98272
5573540	10/10/2012	0.32	1.00	0	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1565.98272
5573540	10/10/1994	0.31	1.00	0	4441	92.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1517.04576
5573540	7/24/1994	0.3	1.00	0	4442	92.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1468.1088
5573540	7/17/2012	0.3	1.00	0	4442	92.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1468.1088
5573540	8/28/1994	0.3	1.00	0	4442	92.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1468.1088
5573540	9/28/2012	0.3	1.00	0	4442	92.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1468.1088
5573540	10/28/2011	0.3	1.00	0	4442	92.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1468.1088
5573540	10/23/2013	0.3	1.00	0	4442	92.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1468.1088
5573540	7/25/2002	0.29	1.00	0	4448	92.9572%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1419.17184
5573540	9/12/1991	0.29	1.00	0	4448	92.9572%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1419.17184
5573540	7/28/1991	0.28	1.00	0	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1370.23488
5573540	8/1/1991	0.28	1.00	0	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1370.23488
5573540	8/18/1991	0.28	1.00	0	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1370.23488
5573540	8/21/1991	0.28	1.00	0	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1370.23488
5573540	9/14/2012	0.28	1.00	0	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1370.23488
5573540	10/25/2011	0.28	1.00	0	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1370.23488
5573540	10/24/2013	0.28	1.00	0	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1370.23488
5573540	10/25/2013	0.28	1.00	0	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1370.23488
5573540	9/20/2002	0.27	1.00	0	4458	93.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1321.29792
5573540	9/20/2012	0.27	1.00	0	4458	93.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1321.29792
5573540	9/24/2012	0.27	1.00	0	4458	93.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1321.29792
5573540	10/11/2012	0.27	1.00	0	4458	93.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1321.29792
5573540	10/30/1994	0.26	1.00	0	4462	93.2497%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1272.36096

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/23/1991	0.25	1.00	0	4463	93.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1223.424
5573540	9/10/2002	0.25	1.00	0	4463	93.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1223.424
5573540	10/27/2011	0.25	1.00	0	4463	93.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1223.424
5573540	10/21/2013	0.25	1.00	0	4463	93.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1223.424
5573540	10/22/2013	0.25	1.00	0	4463	93.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1223.424
5573540	7/30/1991	0.24	1.00	0	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1174.48704
5573540	7/31/1991	0.24	1.00	0	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1174.48704
5573540	8/22/1991	0.24	1.00	0	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1174.48704
5573540	9/2/1994	0.24	1.00	0	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1174.48704
5573540	9/27/1994	0.24	1.00	0	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1174.48704
5573540	9/11/2012	0.24	1.00	0	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1174.48704
5573540	10/27/2005	0.24	1.00	0	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1174.48704
5573540	8/4/1991	0.23	1.00	0	4475	93.5214%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1125.55008
5573540	9/22/1991	0.23	1.00	0	4475	93.5214%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1125.55008
5573540	9/15/2012	0.23	1.00	0	4475	93.5214%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1125.55008
5573540	7/15/2002	0.22	1.00	0	4478	93.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1076.61312
5573540	10/29/1994	0.22	1.00	0	4478	93.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1076.61312
5573540	7/20/2002	0.21	1.00	0	4480	93.6259%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1027.67616
5573540	8/19/2012	0.21	1.00	0	4480	93.6259%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1027.67616
5573540	9/25/1998	0.21	1.00	0	4480	93.6259%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1027.67616
5573540	9/22/2005	0.21	1.00	0	4480	93.6259%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1027.67616
5573540	7/25/1994	0.2	1.00	0	4484	93.7095%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	978.7392
5573540	7/18/2012	0.2	1.00	0	4484	93.7095%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	978.7392
5573540	8/24/1991	0.2	1.00	0	4484	93.7095%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	978.7392
5573540	8/9/2012	0.2	1.00	0	4484	93.7095%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	978.7392
5573540	7/29/2002	0.19	1.00	0	4488	93.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	929.80224
5573540	8/3/2002	0.19	1.00	0	4488	93.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	929.80224
5573540	10/26/2011	0.19	1.00	0	4488	93.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	929.80224
5573540	10/12/2012	0.19	1.00	0	4488	93.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	929.80224
5573540	8/4/2002	0.18	1.00	0	4492	93.8767%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	880.86528
5573540	9/28/1991	0.17	1.00	0	4493	93.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	831.92832
5573540	9/15/2002	0.17	1.00	0	4493	93.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	831.92832
5573540	9/16/2012	0.17	1.00	0	4493	93.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	831.92832
5573540	7/19/2012	0.16	1.00	0	4496	93.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	782.99136
5573540	8/6/1994	0.16	1.00	0	4496	93.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	782.99136
5573540	9/4/2012	0.16	1.00	0	4496	93.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	782.99136
5573540	9/12/2012	0.16	1.00	0	4496	93.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	782.99136
5573540	9/29/2012	0.16	1.00	0	4496	93.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	782.99136
5573540	7/11/2012	0.15	1.00	0	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	734.0544
5573540	7/13/2012	0.15	1.00	0	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	734.0544
5573540	8/21/1994	0.15	1.00	0	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	734.0544
5573540	9/13/1991	0.15	1.00	0	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	734.0544
5573540	9/28/1994	0.15	1.00	0	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	734.0544
5573540	9/29/1994	0.15	1.00	0	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	734.0544
5573540	7/12/2012	0.14	1.00	0	4507	94.1902%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	685.11744
5573540	7/20/2012	0.14	1.00	0	4507	94.1902%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	685.11744

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/11/1995	0.14	1.00	0	4507	94.1902%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	685.11744
5573540	9/13/2012	0.14	1.00	0	4507	94.1902%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	685.11744
5573540	8/28/2012	0.13	1.00	0	4511	94.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	636.18048
5573540	9/8/1991	0.13	1.00	0	4511	94.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	636.18048
5573540	7/21/2012	0.12	1.00	0	4513	94.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	587.24352
5573540	8/15/1994	0.12	1.00	0	4513	94.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	587.24352
5573540	9/6/1995	0.12	1.00	0	4513	94.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	587.24352
5573540	9/30/2012	0.12	1.00	0	4513	94.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	587.24352
5573540	7/31/2002	0.11	1.00	0	4517	94.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	538.30656
5573540	8/10/2012	0.11	1.00	0	4517	94.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	538.30656
5573540	8/20/2012	0.11	1.00	0	4517	94.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	538.30656
5573540	9/30/1991	0.11	1.00	0	4517	94.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	538.30656
5573540	10/29/2000	0.11	1.00	0	4517	94.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	538.30656
5573540	5/1/2003	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	7/26/1994	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	7/14/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	7/21/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	7/30/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	7/3/2003	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	7/4/2003	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	7/5/2003	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	7/6/2003	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	7/7/2003	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	8/5/1991	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	8/17/1993	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	8/1/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	8/2/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	8/5/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	8/6/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	8/7/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	8/8/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	8/9/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	8/10/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	9/30/1994	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	9/11/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	9/12/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	9/13/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	9/14/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	9/16/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	9/21/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	9/22/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	9/23/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	9/24/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	9/25/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	9/26/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	9/27/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/28/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	9/29/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	9/30/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	10/28/1994	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	10/22/2000	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	10/25/2000	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	10/26/2000	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	10/27/2000	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	10/28/2000	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	10/31/2000	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	10/1/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	10/2/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	10/5/2002	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	10/12/2005	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	10/13/2005	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	10/14/2005	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	10/15/2005	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	10/16/2005	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	10/17/2005	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	10/18/2005	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	10/1/2012	0.1	1.00	0	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	489.3696
5573540	7/22/2012	0.09	1.00	0	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	440.43264
5573540	7/31/2012	0.09	1.00	0	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	440.43264
5573540	8/25/1991	0.09	1.00	0	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	440.43264
5573540	8/1/2012	0.09	1.00	0	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	440.43264
5573540	8/3/2012	0.09	1.00	0	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	440.43264
5573540	8/4/2012	0.09	1.00	0	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	440.43264
5573540	10/27/1994	0.09	1.00	0	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	440.43264
5573540	7/24/2012	0.08	1.00	0	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	391.49568
5573540	8/23/2012	0.08	1.00	0	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	391.49568
5573540	9/16/1995	0.08	1.00	0	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	391.49568
5573540	9/10/1996	0.08	1.00	0	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	391.49568
5573540	10/4/1996	0.08	1.00	0	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	391.49568
5573540	10/2/2012	0.08	1.00	0	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	391.49568
5573540	7/25/2012	0.07	1.00	0	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342.55872
5573540	7/30/2012	0.07	1.00	0	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342.55872
5573540	8/26/1991	0.07	1.00	0	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342.55872
5573540	8/2/2012	0.07	1.00	0	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342.55872
5573540	9/14/1991	0.07	1.00	0	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342.55872
5573540	9/5/1995	0.07	1.00	0	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342.55872
5573540	10/1/1991	0.07	1.00	0	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342.55872
5573540	10/1/1994	0.07	1.00	0	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	342.55872
5573540	7/23/2012	0.06	1.00	0	4597	96.0711%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293.62176
5573540	7/29/2012	0.06	1.00	0	4597	96.0711%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293.62176
5573540	8/11/2012	0.06	1.00	0	4597	96.0711%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293.62176
5573540	8/12/2012	0.06	1.00	0	4597	96.0711%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293.62176

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/24/1994	0.06	1.00	0	4597	96.0711%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293.62176
5573540	7/26/2012	0.05	1.00	0	4602	96.1755%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	244.6848
5573540	7/27/2012	0.05	1.00	0	4602	96.1755%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	244.6848
5573540	9/9/1994	0.05	1.00	0	4602	96.1755%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	244.6848
5573540	7/28/2012	0.04	1.00	0	4605	96.2382%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	195.74784
5573540	8/21/2012	0.04	1.00	0	4605	96.2382%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	195.74784
5573540	8/24/2012	0.04	1.00	0	4605	96.2382%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	195.74784
5573540	8/29/1995	0.03	1.00	0	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	146.81088
5573540	8/19/1996	0.03	1.00	0	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	146.81088
5573540	8/22/2012	0.03	1.00	0	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	146.81088
5573540	9/25/1991	0.03	1.00	0	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	146.81088
5573540	9/29/1991	0.03	1.00	0	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	146.81088
5573540	10/2/1994	0.03	1.00	0	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	146.81088
5573540	10/19/1994	0.03	1.00	0	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	146.81088
5573540	9/3/1994	0.02	1.00	0	4615	96.4472%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	97.87392
5573540	9/22/1996	0.02	1.00	0	4615	96.4472%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	97.87392
5573540	10/25/1994	0.02	1.00	0	4615	96.4472%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	97.87392
5573540	8/3/1996	0.01	1.00	0	4618	96.5099%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48.93696
5573540	9/9/1991	0.01	1.00	0	4618	96.5099%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48.93696
5573540	9/23/1991	0.01	1.00	0	4618	96.5099%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48.93696
5573540	10/18/1994	0.01	1.00	0	4618	96.5099%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48.93696
5573540	7/27/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/28/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/29/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/30/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/31/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/15/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/16/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/17/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/18/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/19/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/20/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/21/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/22/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/30/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	7/31/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/7/1993	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/18/1993	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/1/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/7/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/8/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/9/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/10/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/11/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/16/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/17/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/18/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/19/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/22/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/23/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/24/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/25/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/29/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/30/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/31/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/1/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/2/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/3/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/4/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/5/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/6/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/30/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/31/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/4/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/5/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/6/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/7/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/8/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/9/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/10/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/11/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/12/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/13/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/14/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/15/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/16/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/20/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/21/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/22/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/23/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/24/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/25/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/28/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/29/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/30/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/31/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/27/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/25/2012	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/29/2012	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	8/30/2012	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/15/1991	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/16/1991	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/17/1991	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/18/1991	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/19/1991	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/24/1991	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/26/1991	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/27/1991	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/4/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/10/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/11/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/12/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/13/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/14/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/15/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/16/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/17/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/18/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/19/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/20/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/21/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/22/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/1/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/2/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/3/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/4/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/12/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/13/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/14/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/15/1995	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/1/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/2/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/3/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/4/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/5/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/6/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/7/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/11/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/12/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/13/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/14/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/15/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/16/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/17/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/18/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/19/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/20/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/21/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0

Fecal Coliform Load Duration Curve Calculations
(E-09)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/30/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/1/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/2/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/3/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/4/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/5/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/6/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/7/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/8/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/9/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/10/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/11/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/12/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/13/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/14/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/15/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/16/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/17/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/18/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/19/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/20/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/21/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/22/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/23/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	9/24/1998	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/24/1992	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/3/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/4/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/5/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/6/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/7/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/11/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/12/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/13/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/14/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/15/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/16/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/17/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/20/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/21/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/22/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/23/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/26/1994	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/1/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/2/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0
5573540	10/3/1996	0	1.00	0	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	0

Middle Sangamon River (E-16)
Fecal Coliform

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/5/2008	19200	1.32	25374.15	1	0.0209%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	124173359.4
5573540	6/4/2008	16900	1.32	22340.77	2	0.0418%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	109328952.4
5573540	6/7/2008	15300	1.32	20230.60	3	0.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	99002408.42
5573540	5/12/2002	14100	1.32	18647.97	4	0.0836%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	91257500.43
5573540	6/6/2008	13300	1.32	17592.88	5	0.1045%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	86094228.44
5573540	6/8/2008	12700	1.32	16801.57	6	0.1254%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	82221774.44
5573540	5/17/1990	12100	1.32	16010.25	7	0.1463%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	78349320.44
5573540	9/15/2008	11900	1.32	15746.48	8	0.1672%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	77058502.44
5573540	5/19/1995	11100	1.32	14691.40	9	0.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	71895230.45
5573540	9/14/2008	11000	1.32	14559.51	10	0.2090%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	71249821.45
5573540	5/16/1990	10100	1.32	13372.54	11	0.2299%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	65441140.46
5573540	5/13/2002	9900	1.32	13108.77	12	0.2508%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	64150322.46
5573540	6/23/2010	9240	1.32	12238.32	13	0.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	59890623.06
5573540	6/22/2010	9050	1.32	11987.74	14	0.2926%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58664345.96
5573540	5/18/1995	9040	1.32	11974.55	15	0.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	58599805.06
5573540	5/17/2009	8940	1.32	11842.66	16	0.3344%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	57954396.06
5573540	6/9/2008	8800	1.32	11658.02	17	0.3553%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	57050823.46
5573540	9/16/2008	8770	1.32	11618.46	18	0.3762%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	56857200.76
5573540	5/20/1995	8420	1.32	11156.86	19	0.3971%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54598269.27
5573540	6/3/2008	8330	1.32	11038.16	20	0.4180%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	54017401.17
5573540	9/17/2008	8260	1.32	10945.84	21	0.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	53565614.87
5573540	6/19/1998	8110	1.32	10748.01	22	0.4598%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	52597501.37
5573540	5/9/1996	8060	1.32	10682.07	23	0.4807%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	52274796.87
5573540	5/16/2009	7760	1.32	10286.41	24	0.5016%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50338569.87
5573540	6/16/1998	7760	1.32	10286.41	24	0.5016%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	50338569.87
5573540	10/31/2009	7700	1.32	10207.28	26	0.5434%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	49951324.47
5573540	9/18/2008	7690	1.32	10194.09	27	0.5643%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	49886783.57
5573540	5/4/1998	7680	1.32	10180.90	28	0.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	49822242.67
5573540	5/18/1990	7670	1.32	10167.71	29	0.6061%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	49757701.77
5573540	7/16/2014	7670	1.32	10167.71	29	0.6061%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	49757701.77
5573540	6/20/1998	7570	1.32	10035.83	31	0.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	49112292.77
5573540	5/14/2009	7510	1.32	9956.70	32	0.6688%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48725047.37
5573540	5/18/2009	7400	1.32	9811.62	33	0.6897%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	48015097.47
5573540	6/10/2008	7310	1.32	9692.93	34	0.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	47434229.37
5573540	6/21/2010	7190	1.32	9534.66	35	0.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	46659738.57
5573540	5/30/2011	7030	1.32	9323.64	36	0.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45627084.17
5573540	7/17/2014	7010	1.32	9297.27	37	0.7732%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	45498002.37
5573540	5/14/2002	6800	1.32	9020.31	38	0.7941%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	44142643.48
5573540	5/5/1998	6740	1.32	8941.18	39	0.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	43755398.08
5573540	6/23/1998	6710	1.32	8901.61	40	0.8359%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	43561775.38
5573540	5/8/1996	6620	1.32	8782.91	41	0.8568%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42980907.28
5573540	5/31/2011	6600	1.32	8756.54	42	0.8777%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42851825.48
5573540	6/17/1998	6560	1.32	8703.78	43	0.8986%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	42593661.88
5573540	5/17/1995	6250	1.32	8294.94	44	0.9195%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40592893.98
5573540	5/29/2011	6230	1.32	8268.56	45	0.9404%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	40463812.18
5573540	7/28/2006	6150	1.32	8163.05	46	0.9613%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39947484.98

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/21/1995	6130	1.32	8136.67	47	0.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39818403.18
5573540	6/24/2010	6130	1.32	8136.67	47	0.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39818403.18
5573540	9/19/2008	6130	1.32	8136.67	47	0.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39818403.18
5573540	5/14/1996	6120	1.32	8123.48	50	1.0449%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39753862.28
5573540	5/11/1996	6080	1.32	8070.73	51	1.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39495698.68
5573540	5/13/1996	6070	1.32	8057.54	52	1.0867%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39431157.78
5573540	5/19/2009	6060	1.32	8044.35	53	1.1076%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39366616.88
5573540	6/21/1998	6060	1.32	8044.35	53	1.1076%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39366616.88
5573540	7/15/2014	6030	1.32	8004.79	55	1.1494%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39172994.18
5573540	5/16/2002	6020	1.32	7991.60	56	1.1703%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	39108453.28
5573540	6/16/2004	5960	1.32	7912.47	57	1.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38721207.88
5573540	5/26/2011	5950	1.32	7899.28	58	1.2121%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38656666.98
5573540	5/15/2002	5940	1.32	7886.09	59	1.2330%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38592126.08
5573540	6/18/2010	5930	1.32	7872.90	60	1.2539%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38527585.18
5573540	5/12/1996	5910	1.32	7846.52	61	1.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38398503.38
5573540	5/9/1998	5900	1.32	7833.34	62	1.2957%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38333962.48
5573540	6/20/2010	5890	1.32	7820.15	63	1.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38269421.58
5573540	6/11/2008	5870	1.32	7793.77	64	1.3375%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	38140339.78
5573540	5/27/1996	5800	1.32	7701.45	65	1.3584%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37688553.48
5573540	5/8/1998	5800	1.32	7701.45	65	1.3584%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37688553.48
5573540	5/24/1995	5790	1.32	7688.26	67	1.4002%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37624012.58
5573540	5/25/1995	5780	1.32	7675.07	68	1.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37559471.68
5573540	5/20/2009	5750	1.32	7635.51	69	1.4420%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37365848.98
5573540	6/14/2015	5710	1.32	7582.75	70	1.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	37107685.38
5573540	7/13/2015	5690	1.32	7556.38	71	1.4838%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36978603.58
5573540	5/29/1995	5660	1.32	7516.81	72	1.5047%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36784980.88
5573540	6/17/2010	5620	1.32	7464.06	73	1.5256%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36526817.28
5573540	5/17/2002	5580	1.32	7411.30	74	1.5465%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36268653.68
5573540	6/28/2013	5570	1.32	7398.11	75	1.5674%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36204112.78
5573540	7/12/2015	5570	1.32	7398.11	75	1.5674%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36204112.78
5573540	10/21/1993	5570	1.32	7398.11	75	1.5674%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36204112.78
5573540	7/26/1992	5560	1.32	7384.92	78	1.6301%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36139571.88
5573540	10/30/2009	5540	1.32	7358.55	79	1.6510%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	36010490.08
5573540	7/12/2008	5530	1.32	7345.36	80	1.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35945949.18
5573540	7/18/2014	5500	1.32	7305.79	81	1.6928%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35752326.48
5573540	6/29/2013	5490	1.32	7292.60	82	1.7137%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35687785.58
5573540	5/26/1995	5470	1.32	7266.23	83	1.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35558703.78
5573540	6/18/1998	5460	1.32	7253.04	84	1.7555%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35494162.88
5573540	5/28/1995	5450	1.32	7239.85	85	1.7764%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35429621.98
5573540	6/19/2010	5420	1.32	7200.28	86	1.7973%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	35235999.28
5573540	7/14/2015	5380	1.32	7147.53	87	1.8182%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34977835.68
5573540	5/28/2011	5240	1.32	6962.89	88	1.8391%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34074263.08
5573540	5/10/1996	5230	1.32	6949.70	89	1.8600%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34009722.18
5573540	6/13/2015	5230	1.32	6949.70	89	1.8600%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	34009722.18
5573540	5/30/1995	5190	1.32	6896.95	91	1.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33751558.58
5573540	5/27/1995	5170	1.32	6870.57	92	1.9227%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	33622476.78

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/16/2010	5060	1.32	6725.49	93	1.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32912526.89
5573540	5/3/1998	5050	1.32	6712.31	94	1.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32847985.99
5573540	7/29/2006	5050	1.32	6712.31	94	1.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32847985.99
5573540	7/15/2008	4970	1.32	6606.80	96	2.0063%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32331658.79
5573540	5/1/2009	4930	1.32	6554.04	97	2.0272%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	32073495.19
5573540	5/22/1995	4910	1.32	6527.67	98	2.0481%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31944413.39
5573540	6/15/1998	4910	1.32	6527.67	98	2.0481%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31944413.39
5573540	6/22/1990	4880	1.32	6488.10	100	2.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31750790.69
5573540	6/6/2001	4880	1.32	6488.10	100	2.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31750790.69
5573540	6/21/1990	4860	1.32	6461.72	102	2.1317%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31621708.89
5573540	6/20/1990	4830	1.32	6422.16	103	2.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31428086.19
5573540	10/20/1993	4810	1.32	6395.78	104	2.1735%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31299004.39
5573540	5/11/1998	4770	1.32	6343.03	105	2.1944%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	31040840.79
5573540	5/19/1990	4750	1.32	6316.65	106	2.2153%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30911758.99
5573540	9/20/2008	4740	1.32	6303.46	107	2.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30847218.09
5573540	6/20/2009	4730	1.32	6290.27	108	2.2571%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30782677.19
5573540	7/13/2008	4690	1.32	6237.52	109	2.2780%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30524513.59
5573540	5/7/2002	4670	1.32	6211.14	110	2.2989%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30395431.79
5573540	6/12/2008	4650	1.32	6184.76	111	2.3197%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30266349.99
5573540	7/27/1992	4650	1.32	6184.76	111	2.3197%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30266349.99
5573540	6/14/2010	4630	1.32	6158.39	113	2.3615%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30137268.19
5573540	5/1/2011	4620	1.32	6145.20	114	2.3824%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30072727.29
5573540	10/23/1993	4620	1.32	6145.20	114	2.3824%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	30072727.29
5573540	7/6/1993	4590	1.32	6105.63	116	2.4242%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29879104.59
5573540	5/15/1996	4580	1.32	6092.44	117	2.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29814563.69
5573540	5/12/1998	4520	1.32	6013.31	118	2.4660%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29427318.29
5573540	6/17/2004	4520	1.32	6013.31	118	2.4660%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29427318.29
5573540	7/5/1993	4520	1.32	6013.31	118	2.4660%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29427318.29
5573540	5/2/2009	4500	1.32	5986.93	121	2.5287%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29298236.49
5573540	10/22/1993	4500	1.32	5986.93	121	2.5287%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29298236.49
5573540	5/7/1998	4490	1.32	5973.75	123	2.5705%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29233695.59
5573540	6/15/2015	4480	1.32	5960.56	124	2.5914%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29169154.69
5573540	5/10/1998	4470	1.32	5947.37	125	2.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	29104613.79
5573540	6/24/1998	4450	1.32	5920.99	126	2.6332%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28975531.99
5573540	5/16/1995	4430	1.32	5894.61	127	2.6541%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28846450.19
5573540	5/6/1998	4420	1.32	5881.43	128	2.6750%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28781909.29
5573540	6/15/2004	4420	1.32	5881.43	128	2.6750%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28781909.29
5573540	5/27/2011	4410	1.32	5868.24	130	2.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28717368.39
5573540	5/31/1995	4400	1.32	5855.05	131	2.7377%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28652827.49
5573540	5/29/1996	4370	1.32	5815.48	132	2.7586%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28459204.79
5573540	6/1/2011	4360	1.32	5802.29	133	2.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28394663.89
5573540	5/23/1995	4350	1.32	5789.11	134	2.8004%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28330122.99
5573540	5/15/2009	4340	1.32	5775.92	135	2.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28265582.09
5573540	6/15/2010	4320	1.32	5749.54	136	2.8422%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28136500.29
5573540	6/23/1990	4300	1.32	5723.16	137	2.8631%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	28007418.49
5573540	5/15/1995	4230	1.32	5630.84	138	2.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27555632.19

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/30/2015	4220	1.32	5617.65	139	2.9049%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27491091.29
5573540	6/18/2004	4200	1.32	5591.28	140	2.9258%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27362009.49
5573540	5/28/1996	4190	1.32	5578.09	141	2.9467%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	27297468.59
5573540	6/24/1990	4140	1.32	5512.15	142	2.9676%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26974764.09
5573540	6/13/2008	4130	1.32	5498.96	143	2.9885%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26910223.19
5573540	6/2/2013	4110	1.32	5472.58	144	3.0094%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26781141.39
5573540	7/15/2015	4110	1.32	5472.58	144	3.0094%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26781141.39
5573540	5/3/2009	4090	1.32	5446.20	146	3.0512%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26652059.59
5573540	5/9/2002	4030	1.32	5367.07	147	3.0721%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26264814.19
5573540	7/1/2015	4030	1.32	5367.07	147	3.0721%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26264814.19
5573540	6/22/1998	4010	1.32	5340.69	149	3.1139%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	26135732.39
5573540	5/21/2009	3960	1.32	5274.75	150	3.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25813027.89
5573540	7/14/2008	3950	1.32	5261.56	151	3.1557%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25748486.99
5573540	10/29/2009	3940	1.32	5248.37	152	3.1766%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25683946.09
5573540	6/30/2013	3930	1.32	5235.19	153	3.1975%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25619405.19
5573540	7/4/1993	3920	1.32	5222.00	154	3.2184%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25554864.29
5573540	6/25/2010	3910	1.32	5208.81	155	3.2393%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25490323.39
5573540	7/7/1993	3910	1.32	5208.81	155	3.2393%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25490323.39
5573540	7/19/2014	3900	1.32	5195.62	157	3.2811%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25425782.49
5573540	6/2/2011	3890	1.32	5182.43	158	3.3020%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25361241.59
5573540	7/11/2008	3870	1.32	5156.05	159	3.3229%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25232159.79
5573540	6/3/2013	3840	1.32	5116.49	160	3.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	25038537.09
5573540	6/2/1996	3830	1.32	5103.30	161	3.3647%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24973996.19
5573540	6/16/2015	3810	1.32	5076.92	162	3.3856%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24844914.39
5573540	7/9/2015	3740	1.32	4984.60	163	3.4065%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24393128.09
5573540	5/18/2002	3720	1.32	4958.23	164	3.4274%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	24264046.29
5573540	5/19/2002	3660	1.32	4879.09	165	3.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23876800.89
5573540	5/14/1995	3630	1.32	4839.53	166	3.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23683178.19
5573540	6/29/2015	3630	1.32	4839.53	166	3.4692%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23683178.19
5573540	5/20/1990	3580	1.32	4773.58	168	3.5110%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23360473.69
5573540	6/7/2001	3530	1.32	4707.64	169	3.5319%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	23037769.19
5573540	10/28/2009	3500	1.32	4668.08	170	3.5528%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22844146.5
5573540	6/4/1996	3490	1.32	4654.89	171	3.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22779605.6
5573540	6/19/2004	3490	1.32	4654.89	171	3.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22779605.6
5573540	6/25/1990	3480	1.32	4641.70	173	3.6155%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22715064.7
5573540	6/3/1996	3480	1.32	4641.70	173	3.6155%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22715064.7
5573540	9/21/2008	3480	1.32	4641.70	173	3.6155%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22715064.7
5573540	6/1/1996	3440	1.32	4588.94	176	3.6782%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22456901.1
5573540	5/11/1995	3420	1.32	4562.57	177	3.6991%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22327819.3
5573540	5/25/1998	3420	1.32	4562.57	177	3.6991%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22327819.3
5573540	5/10/2002	3420	1.32	4562.57	177	3.6991%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22327819.3
5573540	6/27/2015	3400	1.32	4536.19	180	3.7618%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22198737.5
5573540	5/31/1996	3380	1.32	4509.81	181	3.7827%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	22069655.7
5573540	5/1/1994	3360	1.32	4483.44	182	3.8036%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21940573.9
5573540	5/11/2002	3350	1.32	4470.25	183	3.8245%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21876033
5573540	5/13/1998	3330	1.32	4443.87	184	3.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21746951.2

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/14/1998	3330	1.32	4443.87	184	3.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21746951.2
5573540	6/13/2010	3330	1.32	4443.87	184	3.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21746951.2
5573540	6/15/2011	3320	1.32	4430.68	187	3.9080%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21682410.3
5573540	6/17/2015	3320	1.32	4430.68	187	3.9080%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21682410.3
5573540	5/13/1995	3310	1.32	4417.49	189	3.9498%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21617869.4
5573540	6/13/1998	3310	1.32	4417.49	189	3.9498%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21617869.4
5573540	6/28/2015	3310	1.32	4417.49	189	3.9498%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21617869.4
5573540	6/19/2015	3300	1.32	4404.30	192	4.0125%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21553328.5
5573540	5/5/1996	3280	1.32	4377.93	193	4.0334%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21424246.7
5573540	10/19/1993	3280	1.32	4377.93	193	4.0334%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21424246.7
5573540	5/2/2011	3260	1.32	4351.55	195	4.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21295164.9
5573540	6/18/2015	3260	1.32	4351.55	195	4.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21295164.9
5573540	5/30/1996	3250	1.32	4338.36	197	4.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21230624
5573540	5/4/2009	3250	1.32	4338.36	197	4.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21230624
5573540	7/2/2015	3250	1.32	4338.36	197	4.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21230624
5573540	10/27/1993	3250	1.32	4338.36	197	4.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21230624
5573540	6/1/2013	3240	1.32	4325.17	201	4.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21166083.1
5573540	6/27/2013	3240	1.32	4325.17	201	4.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21166083.1
5573540	7/30/2006	3230	1.32	4311.98	203	4.2424%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21101542.2
5573540	7/16/2008	3220	1.32	4298.80	204	4.2633%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	21037001.3
5573540	5/18/1991	3200	1.32	4272.42	205	4.2842%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20907919.5
5573540	5/8/2002	3180	1.32	4246.04	206	4.3051%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20778837.7
5573540	7/10/2015	3160	1.32	4219.66	207	4.3260%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20649755.9
5573540	10/27/2009	3160	1.32	4219.66	207	4.3260%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20649755.9
5573540	6/14/1998	3140	1.32	4193.29	209	4.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20520674.1
5573540	6/21/2009	3140	1.32	4193.29	209	4.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20520674.1
5573540	5/22/2009	3120	1.32	4166.91	211	4.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20391592.3
5573540	6/4/2013	3120	1.32	4166.91	211	4.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20391592.3
5573540	6/25/1998	3110	1.32	4153.72	213	4.4514%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20327051.4
5573540	6/1/1995	3100	1.32	4140.53	214	4.4723%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20262510.5
5573540	6/14/2008	3100	1.32	4140.53	214	4.4723%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20262510.5
5573540	7/3/1993	3090	1.32	4127.34	216	4.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20197969.6
5573540	5/12/1995	3080	1.32	4114.16	217	4.5350%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20133428.7
5573540	5/20/2002	3080	1.32	4114.16	217	4.5350%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20133428.7
5573540	6/26/2010	3060	1.32	4087.78	219	4.5768%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	20004346.9
5573540	5/6/2009	3050	1.32	4074.59	220	4.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19939806
5573540	5/21/1990	3040	1.32	4061.40	221	4.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19875265.1
5573540	5/8/1994	3040	1.32	4061.40	221	4.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19875265.1
5573540	10/14/1990	3040	1.32	4061.40	221	4.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19875265.1
5573540	5/9/1994	3030	1.32	4048.21	224	4.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19810724.2
5573540	5/10/1995	3030	1.32	4048.21	224	4.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19810724.2
5573540	7/14/2014	3020	1.32	4035.02	226	4.7231%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19746183.3
5573540	6/5/1996	3000	1.32	4008.65	227	4.7440%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19617101.5
5573540	5/1/2002	2990	1.32	3995.46	228	4.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19552560.6
5573540	5/26/1998	2980	1.32	3982.27	229	4.7858%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19488019.7
5573540	7/28/1992	2940	1.32	3929.52	230	4.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19229856.1

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/19/1991	2930	1.32	3916.33	231	4.8276%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19165315.2
5573540	7/10/2008	2920	1.32	3903.14	232	4.8485%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19100774.3
5573540	5/2/1994	2910	1.32	3889.95	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19036233.4
5573540	5/10/2003	2910	1.32	3889.95	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19036233.4
5573540	5/5/2009	2910	1.32	3889.95	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19036233.4
5573540	5/28/2013	2910	1.32	3889.95	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19036233.4
5573540	6/10/1996	2910	1.32	3889.95	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19036233.4
5573540	9/28/1993	2910	1.32	3889.95	233	4.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	19036233.4
5573540	5/26/1996	2900	1.32	3876.76	239	4.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18971692.5
5573540	6/14/2002	2900	1.32	3876.76	239	4.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18971692.5
5573540	7/8/1993	2900	1.32	3876.76	239	4.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18971692.5
5573540	5/15/2004	2890	1.32	3863.57	242	5.0575%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18907151.6
5573540	7/11/2015	2890	1.32	3863.57	242	5.0575%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18907151.6
5573540	6/27/1990	2880	1.32	3850.38	244	5.0993%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18842610.7
5573540	6/6/1996	2870	1.32	3837.20	245	5.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18778069.8
5573540	6/14/2003	2870	1.32	3837.20	245	5.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18778069.8
5573540	6/26/1998	2860	1.32	3824.01	247	5.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18713528.9
5573540	6/5/2013	2860	1.32	3824.01	247	5.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18713528.9
5573540	6/13/2002	2850	1.32	3810.82	249	5.2038%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18648988
5573540	6/20/2015	2850	1.32	3810.82	249	5.2038%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18648988
5573540	7/30/1993	2840	1.32	3797.63	251	5.2456%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18584447.1
5573540	5/2/1998	2830	1.32	3784.44	252	5.2665%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18519906.2
5573540	7/16/2015	2830	1.32	3784.44	252	5.2665%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18519906.2
5573540	6/26/1990	2820	1.32	3771.25	254	5.3083%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18455365.3
5573540	6/24/2014	2820	1.32	3771.25	254	5.3083%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18455365.3
5573540	7/20/2014	2820	1.32	3771.25	254	5.3083%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18455365.3
5573540	5/21/1991	2810	1.32	3758.06	257	5.3710%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18390824.4
5573540	6/27/2010	2810	1.32	3758.06	257	5.3710%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18390824.4
5573540	7/13/2014	2810	1.32	3758.06	257	5.3710%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18390824.4
5573540	10/24/1993	2810	1.32	3758.06	257	5.3710%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18390824.4
5573540	10/29/1993	2810	1.32	3758.06	257	5.3710%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18390824.4
5573540	5/16/1996	2800	1.32	3744.88	262	5.4754%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18326283.5
5573540	5/17/1991	2790	1.32	3731.69	263	5.4963%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18261742.6
5573540	6/12/1996	2780	1.32	3718.50	264	5.5172%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18197201.7
5573540	5/4/1996	2770	1.32	3705.31	265	5.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18132660.8
5573540	6/4/1995	2770	1.32	3705.31	265	5.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18132660.8
5573540	6/3/2011	2770	1.32	3705.31	265	5.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18132660.8
5573540	6/20/2004	2760	1.32	3692.12	268	5.6008%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18068119.9
5573540	5/3/2011	2750	1.32	3678.93	269	5.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18003579
5573540	6/22/2009	2750	1.32	3678.93	269	5.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18003579
5573540	6/26/2013	2750	1.32	3678.93	269	5.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	18003579
5573540	6/7/1996	2740	1.32	3665.74	272	5.6844%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17939038.1
5573540	6/6/2004	2740	1.32	3665.74	272	5.6844%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17939038.1
5573540	5/17/1996	2730	1.32	3652.56	274	5.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17874497.2
5573540	6/15/2002	2730	1.32	3652.56	274	5.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17874497.2
5573540	6/27/1998	2720	1.32	3639.37	276	5.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17809956.3

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/12/2002	2720	1.32	3639.37	276	5.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17809956.3
5573540	7/1/2013	2720	1.32	3639.37	276	5.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17809956.3
5573540	10/16/1990	2720	1.32	3639.37	276	5.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17809956.3
5573540	10/26/2009	2720	1.32	3639.37	276	5.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17809956.3
5573540	6/4/2014	2710	1.32	3626.18	281	5.8725%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17745415.4
5573540	9/29/1993	2700	1.32	3612.99	282	5.8934%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17680874.5
5573540	10/11/1993	2700	1.32	3612.99	282	5.8934%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17680874.5
5573540	5/2/2002	2690	1.32	3599.80	284	5.9352%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17616333.6
5573540	10/13/1990	2690	1.32	3599.80	284	5.9352%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17616333.6
5573540	6/14/1999	2670	1.32	3573.42	286	5.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17487251.8
5573540	6/11/1996	2640	1.32	3533.86	287	5.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17293629.1
5573540	6/6/2013	2630	1.32	3520.67	288	6.0188%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17229088.2
5573540	10/15/1990	2630	1.32	3520.67	288	6.0188%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17229088.2
5573540	10/24/2009	2620	1.32	3507.48	290	6.0606%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17164547.3
5573540	5/15/1998	2610	1.32	3494.29	291	6.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17100006.4
5573540	7/27/2006	2600	1.32	3481.10	292	6.1024%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	17035465.5
5573540	5/3/2002	2590	1.32	3467.92	293	6.1233%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16970924.6
5573540	5/16/2008	2580	1.32	3454.73	294	6.1442%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16906383.7
5573540	5/27/1998	2570	1.32	3441.54	295	6.1651%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16841842.8
5573540	6/15/2003	2570	1.32	3441.54	295	6.1651%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16841842.8
5573540	6/28/2011	2570	1.32	3441.54	295	6.1651%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16841842.8
5573540	6/26/2015	2570	1.32	3441.54	295	6.1651%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16841842.8
5573540	6/16/2002	2560	1.32	3428.35	299	6.2487%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16777301.9
5573540	5/15/1990	2550	1.32	3415.16	300	6.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16712761
5573540	10/10/1990	2550	1.32	3415.16	300	6.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16712761
5573540	10/12/1990	2550	1.32	3415.16	300	6.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16712761
5573540	5/20/1991	2540	1.32	3401.97	303	6.3323%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16648220.1
5573540	6/12/1998	2540	1.32	3401.97	303	6.3323%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16648220.1
5573540	6/16/2011	2540	1.32	3401.97	303	6.3323%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16648220.1
5573540	5/1/1998	2530	1.32	3388.78	306	6.3950%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16583679.2
5573540	6/13/2004	2520	1.32	3375.60	307	6.4159%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16519138.3
5573540	7/9/2008	2520	1.32	3375.60	307	6.4159%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16519138.3
5573540	5/18/1996	2510	1.32	3362.41	309	6.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16454597.4
5573540	6/18/2011	2510	1.32	3362.41	309	6.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16454597.4
5573540	5/22/1990	2500	1.32	3349.22	311	6.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16390056.5
5573540	5/19/2008	2500	1.32	3349.22	311	6.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16390056.5
5573540	9/8/1993	2500	1.32	3349.22	311	6.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16390056.5
5573540	6/25/2014	2480	1.32	3322.84	314	6.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16260974.7
5573540	9/22/2008	2480	1.32	3322.84	314	6.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16260974.7
5573540	9/27/1993	2470	1.32	3309.65	316	6.6040%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16196433.8
5573540	5/24/1998	2440	1.32	3270.09	317	6.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16002811.1
5573540	5/4/2002	2440	1.32	3270.09	317	6.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16002811.1
5573540	6/21/2015	2440	1.32	3270.09	317	6.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16002811.1
5573540	7/29/1993	2440	1.32	3270.09	317	6.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	16002811.1
5573540	5/14/2004	2430	1.32	3256.90	321	6.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15938270.2
5573540	6/13/1995	2420	1.32	3243.71	322	6.7294%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15873729.3

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/4/2011	2410	1.32	3230.52	323	6.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15809188.4
5573540	7/3/2015	2410	1.32	3230.52	323	6.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15809188.4
5573540	10/12/1993	2410	1.32	3230.52	323	6.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15809188.4
5573540	10/25/2009	2410	1.32	3230.52	323	6.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15809188.4
5573540	5/29/2013	2400	1.32	3217.33	327	6.8339%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15744647.5
5573540	6/22/2015	2390	1.32	3204.14	328	6.8548%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15680106.6
5573540	5/14/1990	2380	1.32	3190.96	329	6.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15615565.7
5573540	7/6/2014	2380	1.32	3190.96	329	6.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15615565.7
5573540	9/30/1993	2380	1.32	3190.96	329	6.8757%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15615565.7
5573540	6/2/1995	2370	1.32	3177.77	332	6.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15551024.8
5573540	5/10/1994	2360	1.32	3164.58	333	6.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15486483.9
5573540	5/21/2002	2360	1.32	3164.58	333	6.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15486483.9
5573540	6/28/1998	2360	1.32	3164.58	333	6.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15486483.9
5573540	6/19/2009	2360	1.32	3164.58	333	6.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15486483.9
5573540	7/5/2000	2360	1.32	3164.58	333	6.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15486483.9
5573540	5/22/1991	2350	1.32	3151.39	338	7.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15421943
5573540	6/28/2010	2350	1.32	3151.39	338	7.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15421943
5573540	7/16/1993	2350	1.32	3151.39	338	7.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15421943
5573540	10/28/1993	2350	1.32	3151.39	338	7.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15421943
5573540	9/18/1993	2340	1.32	3138.20	342	7.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15357402.1
5573540	10/18/1993	2340	1.32	3138.20	342	7.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15357402.1
5573540	6/13/1996	2330	1.32	3125.01	344	7.1891%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15292861.2
5573540	7/29/1992	2330	1.32	3125.01	344	7.1891%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15292861.2
5573540	10/13/1993	2320	1.32	3111.82	346	7.2309%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15228320.3
5573540	5/23/1991	2310	1.32	3098.64	347	7.2518%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15163779.4
5573540	5/24/1991	2310	1.32	3098.64	347	7.2518%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15163779.4
5573540	6/19/1990	2310	1.32	3098.64	347	7.2518%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15163779.4
5573540	8/29/2004	2310	1.32	3098.64	347	7.2518%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15163779.4
5573540	5/7/2009	2300	1.32	3085.45	351	7.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15099238.5
5573540	5/23/2009	2300	1.32	3085.45	351	7.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15099238.5
5573540	6/3/1995	2290	1.32	3072.26	353	7.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15034697.6
5573540	7/13/2006	2290	1.32	3072.26	353	7.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15034697.6
5573540	8/28/2004	2290	1.32	3072.26	353	7.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15034697.6
5573540	9/13/2014	2290	1.32	3072.26	353	7.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	15034697.6
5573540	5/10/2013	2280	1.32	3059.07	357	7.4608%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14970156.7
5573540	9/19/1993	2280	1.32	3059.07	357	7.4608%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14970156.7
5573540	9/24/1993	2280	1.32	3059.07	357	7.4608%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14970156.7
5573540	10/11/1990	2280	1.32	3059.07	357	7.4608%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14970156.7
5573540	7/15/2003	2270	1.32	3045.88	361	7.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14905615.8
5573540	9/17/1993	2270	1.32	3045.88	361	7.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14905615.8
5573540	9/16/1993	2260	1.32	3032.69	363	7.5862%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14841074.9
5573540	5/1/1996	2250	1.32	3019.50	364	7.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14776534
5573540	6/8/1996	2250	1.32	3019.50	364	7.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14776534
5573540	6/5/2014	2250	1.32	3019.50	364	7.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14776534
5573540	8/19/2006	2250	1.32	3019.50	364	7.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14776534
5573540	7/3/2014	2240	1.32	3006.32	368	7.6907%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14711993.1

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/13/1990	2230	1.32	2993.13	369	7.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14647452.2
5573540	6/12/2014	2230	1.32	2993.13	369	7.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14647452.2
5573540	9/7/1993	2230	1.32	2993.13	369	7.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14647452.2
5573540	10/1/1993	2230	1.32	2993.13	369	7.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14647452.2
5573540	10/10/1993	2230	1.32	2993.13	369	7.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14647452.2
5573540	5/25/1991	2210	1.32	2966.75	374	7.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14518370.4
5573540	5/3/1994	2210	1.32	2966.75	374	7.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14518370.4
5573540	5/11/2003	2210	1.32	2966.75	374	7.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14518370.4
5573540	5/6/2013	2210	1.32	2966.75	374	7.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14518370.4
5573540	6/7/2013	2210	1.32	2966.75	374	7.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14518370.4
5573540	5/23/1990	2200	1.32	2953.56	379	7.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14453829.5
5573540	6/15/1990	2200	1.32	2953.56	379	7.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14453829.5
5573540	6/30/1990	2200	1.32	2953.56	379	7.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14453829.5
5573540	6/13/1999	2190	1.32	2940.37	382	7.9833%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14389288.6
5573540	5/15/2008	2180	1.32	2927.18	383	8.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14324747.7
5573540	7/5/2014	2180	1.32	2927.18	383	8.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14324747.7
5573540	6/17/2002	2170	1.32	2914.00	385	8.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14260206.8
5573540	6/23/2009	2170	1.32	2914.00	385	8.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14260206.8
5573540	7/7/2014	2170	1.32	2914.00	385	8.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14260206.8
5573540	10/9/1990	2170	1.32	2914.00	385	8.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14260206.8
5573540	5/9/1995	2160	1.32	2900.81	389	8.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14195665.9
5573540	5/22/2002	2160	1.32	2900.81	389	8.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14195665.9
5573540	10/14/1993	2160	1.32	2900.81	389	8.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14195665.9
5573540	5/18/2008	2150	1.32	2887.62	392	8.1923%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14131125
5573540	6/8/2001	2150	1.32	2887.62	392	8.1923%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14131125
5573540	6/12/2010	2150	1.32	2887.62	392	8.1923%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14131125
5573540	7/16/2003	2150	1.32	2887.62	392	8.1923%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14131125
5573540	5/11/2013	2140	1.32	2874.43	396	8.2759%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14066584.1
5573540	6/19/2011	2140	1.32	2874.43	396	8.2759%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14066584.1
5573540	5/12/2008	2130	1.32	2861.24	398	8.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14002043.2
5573540	6/5/2004	2130	1.32	2861.24	398	8.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14002043.2
5573540	6/25/2015	2130	1.32	2861.24	398	8.3177%	Fecal_coliform	6050	cfu/100mL	200	283.2	423561806.9	14002043.2
5573540	7/30/1992	2130	1.32	2861.24	398	8.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	14002043.2
5573540	6/5/1999	2120	1.32	2848.05	402	8.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13937502.3
5573540	7/9/1992	2120	1.32	2848.05	402	8.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13937502.3
5573540	6/15/1999	2110	1.32	2834.86	404	8.4431%	Fecal_coliform	2200	cfu/100mL	200	283.2	152602575.4	13872961.4
5573540	9/12/1993	2110	1.32	2834.86	404	8.4431%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13872961.4
5573540	5/5/2013	2100	1.32	2821.68	406	8.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13808420.5
5573540	6/28/1990	2100	1.32	2821.68	406	8.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13808420.5
5573540	7/28/1993	2100	1.32	2821.68	406	8.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13808420.5
5573540	5/19/1996	2090	1.32	2808.49	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13743879.6
5573540	5/16/2004	2090	1.32	2808.49	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13743879.6
5573540	6/30/1998	2090	1.32	2808.49	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13743879.6
5573540	6/11/2011	2090	1.32	2808.49	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13743879.6
5573540	6/13/2014	2090	1.32	2808.49	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13743879.6
5573540	6/23/2015	2090	1.32	2808.49	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13743879.6

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/14/2003	2090	1.32	2808.49	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13743879.6
5573540	7/4/2014	2090	1.32	2808.49	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13743879.6
5573540	10/2/1993	2090	1.32	2808.49	409	8.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13743879.6
5573540	5/17/2008	2080	1.32	2795.30	418	8.7356%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13679338.7
5573540	6/30/1993	2080	1.32	2795.30	418	8.7356%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13679338.7
5573540	10/17/1993	2070	1.32	2782.11	420	8.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13614797.8
5573540	5/7/1994	2060	1.32	2768.92	421	8.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13550256.9
5573540	7/25/2010	2060	1.32	2768.92	421	8.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13550256.9
5573540	5/12/1994	2050	1.32	2755.73	423	8.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13485716
5573540	5/14/2008	2050	1.32	2755.73	423	8.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13485716
5573540	6/6/1999	2050	1.32	2755.73	423	8.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13485716
5573540	6/12/2015	2050	1.32	2755.73	423	8.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13485716
5573540	5/27/1990	2040	1.32	2742.54	427	8.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13421175.1
5573540	5/28/2004	2040	1.32	2742.54	427	8.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13421175.1
5573540	6/4/2011	2040	1.32	2742.54	427	8.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13421175.1
5573540	5/5/1993	2030	1.32	2729.36	430	8.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13356634.2
5573540	5/27/2004	2030	1.32	2729.36	430	8.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13356634.2
5573540	6/29/1990	2030	1.32	2729.36	430	8.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13356634.2
5573540	6/14/2004	2030	1.32	2729.36	430	8.9864%	Fecal_coliform	350	cfu/100mL	200	283.2	23374109.86	13356634.2
5573540	6/11/2014	2030	1.32	2729.36	430	8.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13356634.2
5573540	10/23/2009	2030	1.32	2729.36	430	8.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13356634.2
5573540	5/20/2004	2020	1.32	2716.17	436	9.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13292093.3
5573540	5/13/2009	2020	1.32	2716.17	436	9.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13292093.3
5573540	9/15/1993	2020	1.32	2716.17	436	9.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13292093.3
5573540	7/5/1990	2010	1.32	2702.98	439	9.1745%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13227552.4
5573540	7/31/1992	2010	1.32	2702.98	439	9.1745%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13227552.4
5573540	7/27/1993	2010	1.32	2702.98	439	9.1745%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13227552.4
5573540	7/2/2014	2010	1.32	2702.98	439	9.1745%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13227552.4
5573540	6/11/2010	2000	1.32	2689.79	443	9.2581%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13163011.5
5573540	5/11/1994	1990	1.32	2676.60	444	9.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13098470.6
5573540	7/2/1993	1990	1.32	2676.60	444	9.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13098470.6
5573540	9/26/1993	1990	1.32	2676.60	444	9.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13098470.6
5573540	10/25/2001	1990	1.32	2676.60	444	9.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13098470.6
5573540	6/16/1990	1980	1.32	2663.41	448	9.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	13033929.7
5573540	5/20/2010	1970	1.32	2650.22	449	9.3835%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12969388.8
5573540	5/25/1990	1960	1.32	2637.04	450	9.4044%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12904847.9
5573540	5/29/2004	1960	1.32	2637.04	450	9.4044%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12904847.9
5573540	5/19/2010	1950	1.32	2623.85	452	9.4462%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12840307
5573540	5/9/1991	1940	1.32	2610.66	453	9.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12775766.1
5573540	6/1/2008	1940	1.32	2610.66	453	9.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12775766.1
5573540	9/25/1993	1940	1.32	2610.66	453	9.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12775766.1
5573540	5/5/1994	1930	1.32	2597.47	456	9.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12711225.2
5573540	5/21/2004	1930	1.32	2597.47	456	9.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12711225.2
5573540	6/7/2004	1930	1.32	2597.47	456	9.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12711225.2
5573540	7/6/2000	1930	1.32	2597.47	456	9.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12711225.2
5573540	9/5/1993	1930	1.32	2597.47	456	9.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12711225.2

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/1/1993	1920	1.32	2584.28	461	9.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12646684.3
5573540	5/2/2007	1920	1.32	2584.28	461	9.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12646684.3
5573540	6/15/2008	1920	1.32	2584.28	461	9.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12646684.3
5573540	5/21/2010	1910	1.32	2571.09	464	9.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12582143.4
5573540	9/11/1993	1910	1.32	2571.09	464	9.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12582143.4
5573540	9/23/1993	1910	1.32	2571.09	464	9.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12582143.4
5573540	5/1/2007	1900	1.32	2557.90	467	9.7597%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12517602.5
5573540	7/8/2008	1900	1.32	2557.90	467	9.7597%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12517602.5
5573540	5/28/1990	1890	1.32	2544.71	469	9.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12453061.6
5573540	5/30/2004	1890	1.32	2544.71	469	9.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12453061.6
5573540	7/10/1992	1890	1.32	2544.71	469	9.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12453061.6
5573540	7/13/1992	1890	1.32	2544.71	469	9.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12453061.6
5573540	5/20/1996	1880	1.32	2531.53	473	9.8851%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12388520.7
5573540	7/2/2013	1880	1.32	2531.53	473	9.8851%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12388520.7
5573540	5/26/1990	1870	1.32	2518.34	475	9.9269%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12323979.8
5573540	5/11/1991	1850	1.32	2491.96	476	9.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12194898.01
5573540	5/13/2008	1850	1.32	2491.96	476	9.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12194898.01
5573540	6/14/1995	1850	1.32	2491.96	476	9.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12194898.01
5573540	7/12/1992	1850	1.32	2491.96	476	9.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12194898.01
5573540	5/23/2002	1840	1.32	2478.77	480	10.0313%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12130357.11
5573540	5/19/2004	1840	1.32	2478.77	480	10.0313%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12130357.11
5573540	7/25/1990	1840	1.32	2478.77	480	10.0313%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12130357.11
5573540	10/26/1993	1840	1.32	2478.77	480	10.0313%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12130357.11
5573540	6/18/2002	1830	1.32	2465.58	484	10.1149%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12065816.21
5573540	7/3/1990	1830	1.32	2465.58	484	10.1149%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12065816.21
5573540	7/14/1992	1830	1.32	2465.58	484	10.1149%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12065816.21
5573540	7/31/1993	1830	1.32	2465.58	484	10.1149%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12065816.21
5573540	5/2/1993	1820	1.32	2452.39	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12001275.31
5573540	5/6/1994	1820	1.32	2452.39	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12001275.31
5573540	5/22/2010	1820	1.32	2452.39	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12001275.31
5573540	5/7/2013	1820	1.32	2452.39	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12001275.31
5573540	6/10/2010	1820	1.32	2452.39	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12001275.31
5573540	7/1/1990	1820	1.32	2452.39	488	10.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	12001275.31
5573540	6/20/1993	1810	1.32	2439.21	494	10.3239%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11936734.41
5573540	7/4/2015	1810	1.32	2439.21	494	10.3239%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11936734.41
5573540	9/12/2014	1810	1.32	2439.21	494	10.3239%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11936734.41
5573540	5/4/2013	1800	1.32	2426.02	497	10.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11872193.51
5573540	6/27/2011	1800	1.32	2426.02	497	10.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11872193.51
5573540	6/10/2014	1800	1.32	2426.02	497	10.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11872193.51
5573540	8/27/2004	1800	1.32	2426.02	497	10.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11872193.51
5573540	6/13/2003	1790	1.32	2412.83	501	10.4702%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11807652.61
5573540	6/9/2014	1790	1.32	2412.83	501	10.4702%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11807652.61
5573540	10/17/1990	1790	1.32	2412.83	501	10.4702%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11807652.61
5573540	10/3/1993	1790	1.32	2412.83	501	10.4702%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11807652.61
5573540	5/24/1990	1780	1.32	2399.64	505	10.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11743111.71
5573540	5/16/2014	1780	1.32	2399.64	505	10.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11743111.71

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/8/2014	1780	1.32	2399.64	505	10.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11743111.71
5573540	7/17/2015	1780	1.32	2399.64	505	10.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11743111.71
5573540	10/4/2014	1780	1.32	2399.64	505	10.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11743111.71
5573540	5/2/1996	1770	1.32	2386.45	510	10.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11678570.81
5573540	5/5/2002	1770	1.32	2386.45	510	10.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11678570.81
5573540	6/8/1995	1770	1.32	2386.45	510	10.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11678570.81
5573540	6/4/2004	1770	1.32	2386.45	510	10.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11678570.81
5573540	9/20/1993	1770	1.32	2386.45	510	10.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11678570.81
5573540	5/31/2004	1760	1.32	2373.26	515	10.7628%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11614029.91
5573540	7/9/1993	1760	1.32	2373.26	515	10.7628%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11614029.91
5573540	8/1/1992	1760	1.32	2373.26	515	10.7628%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11614029.91
5573540	5/17/2014	1750	1.32	2360.07	518	10.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11549489.01
5573540	6/12/2004	1750	1.32	2360.07	518	10.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11549489.01
5573540	7/1/1998	1750	1.32	2360.07	518	10.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11549489.01
5573540	7/4/1998	1750	1.32	2360.07	518	10.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11549489.01
5573540	5/26/2004	1740	1.32	2346.89	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11484948.11
5573540	6/19/2002	1740	1.32	2346.89	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11484948.11
5573540	7/6/1990	1740	1.32	2346.89	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11484948.11
5573540	7/1/1993	1740	1.32	2346.89	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11484948.11
5573540	7/17/2008	1740	1.32	2346.89	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11484948.11
5573540	10/31/2001	1740	1.32	2346.89	522	10.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11484948.11
5573540	5/10/1991	1730	1.32	2333.70	528	11.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11420407.21
5573540	5/4/1994	1730	1.32	2333.70	528	11.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11420407.21
5573540	5/29/2000	1730	1.32	2333.70	528	11.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11420407.21
5573540	6/21/2004	1730	1.32	2333.70	528	11.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11420407.21
5573540	6/12/1995	1720	1.32	2320.51	532	11.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11355866.31
5573540	6/9/1996	1720	1.32	2320.51	532	11.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11355866.31
5573540	6/24/2015	1720	1.32	2320.51	532	11.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11355866.31
5573540	9/14/2014	1720	1.32	2320.51	532	11.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11355866.31
5573540	5/8/2009	1710	1.32	2307.32	536	11.2017%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11291325.41
5573540	6/2/2008	1710	1.32	2307.32	536	11.2017%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11291325.41
5573540	6/9/2011	1710	1.32	2307.32	536	11.2017%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11291325.41
5573540	5/18/2014	1700	1.32	2294.13	539	11.2644%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11226784.51
5573540	5/11/2008	1690	1.32	2280.94	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11162243.61
5573540	5/30/2013	1690	1.32	2280.94	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11162243.61
5573540	5/15/2014	1690	1.32	2280.94	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11162243.61
5573540	6/5/1995	1690	1.32	2280.94	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11162243.61
5573540	6/2/1999	1690	1.32	2280.94	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11162243.61
5573540	6/17/2003	1690	1.32	2280.94	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11162243.61
5573540	9/16/2014	1690	1.32	2280.94	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11162243.61
5573540	10/15/2014	1690	1.32	2280.94	540	11.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11162243.61
5573540	5/22/2004	1680	1.32	2267.75	548	11.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11097702.71
5573540	6/9/1993	1680	1.32	2267.75	548	11.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11097702.71
5573540	6/16/2003	1680	1.32	2267.75	548	11.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11097702.71
5573540	6/1/2006	1680	1.32	2267.75	548	11.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11097702.71
5573540	5/5/2011	1670	1.32	2254.57	552	11.5361%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11033161.81

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/8/1993	1670	1.32	2254.57	552	11.5361%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11033161.81
5573540	10/16/2014	1670	1.32	2254.57	552	11.5361%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	11033161.81
5573540	5/12/2013	1660	1.32	2241.38	555	11.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10968620.91
5573540	5/31/2013	1660	1.32	2241.38	555	11.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10968620.91
5573540	5/11/2015	1660	1.32	2241.38	555	11.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10968620.91
5573540	10/25/1993	1650	1.32	2228.19	558	11.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10904080.01
5573540	5/16/1991	1640	1.32	2215.00	559	11.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10839539.11
5573540	5/3/2013	1640	1.32	2215.00	559	11.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10839539.11
5573540	9/9/1993	1640	1.32	2215.00	559	11.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10839539.11
5573540	6/14/2014	1630	1.32	2201.81	562	11.7450%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10774998.21
5573540	10/3/2014	1630	1.32	2201.81	562	11.7450%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10774998.21
5573540	5/13/2003	1610	1.32	2175.43	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10645916.41
5573540	5/20/2008	1610	1.32	2175.43	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10645916.41
5573540	6/29/2010	1610	1.32	2175.43	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10645916.41
5573540	6/5/2011	1610	1.32	2175.43	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10645916.41
5573540	7/22/2008	1610	1.32	2175.43	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10645916.41
5573540	8/27/2002	1610	1.32	2175.43	564	11.7868%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10645916.41
5573540	5/15/2003	1600	1.32	2162.25	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10581375.51
5573540	5/18/2004	1600	1.32	2162.25	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10581375.51
5573540	6/15/1995	1600	1.32	2162.25	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10581375.51
5573540	7/17/1993	1600	1.32	2162.25	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10581375.51
5573540	9/5/2008	1600	1.32	2162.25	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10581375.51
5573540	10/5/2014	1600	1.32	2162.25	570	11.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10581375.51
5573540	5/12/1991	1590	1.32	2149.06	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10516834.61
5573540	5/9/2009	1590	1.32	2149.06	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10516834.61
5573540	5/23/2010	1590	1.32	2149.06	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10516834.61
5573540	6/10/1993	1590	1.32	2149.06	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10516834.61
5573540	6/3/2004	1590	1.32	2149.06	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10516834.61
5573540	7/22/1990	1590	1.32	2149.06	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10516834.61
5573540	10/16/1993	1590	1.32	2149.06	576	12.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10516834.61
5573540	5/29/1990	1580	1.32	2135.87	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10452293.71
5573540	5/24/2009	1580	1.32	2135.87	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10452293.71
5573540	6/29/1998	1580	1.32	2135.87	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10452293.71
5573540	6/16/1999	1580	1.32	2135.87	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10452293.71
5573540	7/11/1992	1580	1.32	2135.87	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10452293.71
5573540	7/15/1993	1580	1.32	2135.87	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10452293.71
5573540	7/31/2006	1580	1.32	2135.87	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10452293.71
5573540	9/6/1993	1580	1.32	2135.87	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10452293.71
5573540	10/31/2004	1580	1.32	2135.87	583	12.1839%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10452293.71
5573540	6/11/1998	1570	1.32	2122.68	592	12.3720%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10387752.81
5573540	7/21/2014	1570	1.32	2122.68	592	12.3720%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10387752.81
5573540	7/4/1990	1560	1.32	2109.49	594	12.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10323211.91
5573540	5/9/2013	1550	1.32	2096.30	595	12.4347%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10258671.01
5573540	10/15/1993	1550	1.32	2096.30	595	12.4347%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10258671.01
5573540	5/30/1990	1540	1.32	2083.11	597	12.4765%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10194130.11
5573540	5/6/1996	1540	1.32	2083.11	597	12.4765%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10194130.11

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/6/2011	1540	1.32	2083.11	597	12.4765%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10194130.11
5573540	6/24/2000	1530	1.32	2069.93	600	12.5392%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10129589.21
5573540	7/26/1993	1530	1.32	2069.93	600	12.5392%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10129589.21
5573540	9/10/1993	1530	1.32	2069.93	600	12.5392%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10129589.21
5573540	10/14/2014	1530	1.32	2069.93	600	12.5392%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10129589.21
5573540	5/28/2000	1520	1.32	2056.74	604	12.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10065048.31
5573540	6/14/1996	1520	1.32	2056.74	604	12.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10065048.31
5573540	6/26/2000	1520	1.32	2056.74	604	12.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10065048.31
5573540	10/18/1990	1520	1.32	2056.74	604	12.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10065048.31
5573540	5/18/2010	1510	1.32	2043.55	608	12.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10000507.41
5573540	8/29/2006	1510	1.32	2043.55	608	12.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10000507.41
5573540	10/18/2014	1510	1.32	2043.55	608	12.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	10000507.41
5573540	5/21/2008	1500	1.32	2030.36	611	12.7691%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9935966.507
5573540	6/17/1990	1500	1.32	2030.36	611	12.7691%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9935966.507
5573540	7/2/1990	1500	1.32	2030.36	611	12.7691%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9935966.507
5573540	8/26/2002	1500	1.32	2030.36	611	12.7691%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9935966.507
5573540	10/9/1993	1500	1.32	2030.36	611	12.7691%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9935966.507
5573540	5/1/2013	1490	1.32	2017.17	616	12.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9871425.607
5573540	6/14/1990	1490	1.32	2017.17	616	12.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9871425.607
5573540	6/23/2000	1490	1.32	2017.17	616	12.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9871425.607
5573540	6/26/2014	1490	1.32	2017.17	616	12.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9871425.607
5573540	7/8/1998	1490	1.32	2017.17	616	12.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9871425.607
5573540	5/12/2015	1480	1.32	2003.98	621	12.9781%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9806884.707
5573540	7/2/1998	1480	1.32	2003.98	621	12.9781%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9806884.707
5573540	10/17/2014	1480	1.32	2003.98	621	12.9781%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9806884.707
5573540	5/23/1998	1470	1.32	1990.79	624	13.0408%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9742343.807
5573540	6/14/2005	1460	1.32	1977.61	625	13.0617%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9677802.907
5573540	10/6/2014	1460	1.32	1977.61	625	13.0617%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9677802.907
5573540	5/25/2009	1450	1.32	1964.42	627	13.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9613262.007
5573540	6/11/1990	1450	1.32	1964.42	627	13.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9613262.007
5573540	7/25/1992	1450	1.32	1964.42	627	13.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9613262.007
5573540	8/2/1992	1450	1.32	1964.42	627	13.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9613262.007
5573540	5/6/1991	1440	1.32	1951.23	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9548721.108
5573540	5/12/2003	1440	1.32	1951.23	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9548721.108
5573540	5/13/2010	1440	1.32	1951.23	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9548721.108
5573540	6/25/2000	1440	1.32	1951.23	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9548721.108
5573540	6/1/2015	1440	1.32	1951.23	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9548721.108
5573540	7/23/1990	1440	1.32	1951.23	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9548721.108
5573540	7/10/1993	1440	1.32	1951.23	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9548721.108
5573540	7/13/2003	1440	1.32	1951.23	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9548721.108
5573540	7/8/2014	1440	1.32	1951.23	631	13.1870%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9548721.108
5573540	5/16/1998	1430	1.32	1938.04	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9484180.208
5573540	5/10/2009	1430	1.32	1938.04	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9484180.208
5573540	5/24/2010	1430	1.32	1938.04	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9484180.208
5573540	6/7/1993	1430	1.32	1938.04	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9484180.208
5573540	6/11/1995	1430	1.32	1938.04	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9484180.208

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/25/2002	1430	1.32	1938.04	640	13.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9484180.208
5573540	5/19/2014	1420	1.32	1924.85	646	13.5005%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9419639.308
5573540	6/24/2009	1420	1.32	1924.85	646	13.5005%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9419639.308
5573540	6/11/2015	1420	1.32	1924.85	646	13.5005%	Fecal_coliform	260	cfu/100mL	200	283.2	12245531.1	9419639.308
5573540	7/24/2008	1420	1.32	1924.85	646	13.5005%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9419639.308
5573540	6/9/2001	1410	1.32	1911.66	650	13.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9355098.408
5573540	7/26/1990	1410	1.32	1911.66	650	13.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9355098.408
5573540	10/19/2014	1410	1.32	1911.66	650	13.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9355098.408
5573540	5/24/2002	1400	1.32	1898.47	653	13.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9290557.508
5573540	6/3/1999	1400	1.32	1898.47	653	13.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9290557.508
5573540	6/10/2001	1400	1.32	1898.47	653	13.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9290557.508
5573540	6/18/2009	1400	1.32	1898.47	653	13.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9290557.508
5573540	6/2/2015	1400	1.32	1898.47	653	13.6468%	Fecal_coliform	250	cfu/100mL	200	283.2	11613196.88	9290557.508
5573540	9/4/1993	1400	1.32	1898.47	653	13.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9290557.508
5573540	5/16/2011	1390	1.32	1885.29	659	13.7722%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9226016.608
5573540	6/11/2004	1390	1.32	1885.29	659	13.7722%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9226016.608
5573540	5/12/1990	1380	1.32	1872.10	661	13.8140%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9161475.708
5573540	5/8/1993	1380	1.32	1872.10	661	13.8140%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9161475.708
5573540	6/27/2014	1380	1.32	1872.10	661	13.8140%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9161475.708
5573540	7/9/1998	1380	1.32	1872.10	661	13.8140%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9161475.708
5573540	5/23/2004	1370	1.32	1858.91	665	13.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9096934.808
5573540	5/3/2007	1370	1.32	1858.91	665	13.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9096934.808
5573540	6/7/1992	1370	1.32	1858.91	665	13.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9096934.808
5573540	8/30/2004	1370	1.32	1858.91	665	13.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9096934.808
5573540	6/13/1994	1360	1.32	1845.72	669	13.9812%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	9032393.908
5573540	5/4/1993	1350	1.32	1832.53	670	14.0021%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8967853.008
5573540	5/22/2008	1350	1.32	1832.53	670	14.0021%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8967853.008
5573540	6/22/2004	1350	1.32	1832.53	670	14.0021%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8967853.008
5573540	6/5/2015	1350	1.32	1832.53	670	14.0021%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8967853.008
5573540	5/28/1998	1340	1.32	1819.34	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8903312.108
5573540	5/14/2010	1340	1.32	1819.34	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8903312.108
5573540	6/10/1990	1340	1.32	1819.34	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8903312.108
5573540	6/1/2004	1340	1.32	1819.34	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8903312.108
5573540	6/18/2008	1340	1.32	1819.34	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8903312.108
5573540	6/3/2015	1340	1.32	1819.34	674	14.0857%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8903312.108
5573540	5/11/2009	1330	1.32	1806.15	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8838771.208
5573540	6/14/1997	1330	1.32	1806.15	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8838771.208
5573540	6/12/2003	1330	1.32	1806.15	680	14.2111%	Fecal_coliform	820	cfu/100mL	200	283.2	36238961.95	8838771.208
5573540	6/8/2013	1330	1.32	1806.15	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8838771.208
5573540	6/4/2015	1330	1.32	1806.15	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8838771.208
5573540	6/9/2015	1330	1.32	1806.15	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8838771.208
5573540	7/11/2004	1330	1.32	1806.15	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8838771.208
5573540	7/18/2008	1330	1.32	1806.15	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8838771.208
5573540	8/14/1999	1330	1.32	1806.15	680	14.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8838771.208
5573540	5/7/1993	1320	1.32	1792.97	689	14.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8774230.308
5573540	6/7/1999	1320	1.32	1792.97	689	14.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8774230.308

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/23/2004	1320	1.32	1792.97	689	14.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8774230.308
5573540	7/3/1998	1320	1.32	1792.97	689	14.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8774230.308
5573540	9/23/2008	1320	1.32	1792.97	689	14.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8774230.308
5573540	5/8/1991	1310	1.32	1779.78	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8709689.408
5573540	5/17/2004	1310	1.32	1779.78	694	14.5037%	Fecal_coliform	700	cfu/100mL	200	283.2	30483912.93	8709689.408
5573540	6/6/1993	1310	1.32	1779.78	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8709689.408
5573540	6/9/1999	1310	1.32	1779.78	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8709689.408
5573540	6/7/2011	1310	1.32	1779.78	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8709689.408
5573540	6/12/2011	1310	1.32	1779.78	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8709689.408
5573540	10/26/2001	1310	1.32	1779.78	694	14.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8709689.408
5573540	5/14/2003	1300	1.32	1766.59	701	14.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8645148.508
5573540	6/2/2006	1300	1.32	1766.59	701	14.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8645148.508
5573540	7/20/1993	1300	1.32	1766.59	701	14.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8645148.508
5573540	10/4/1993	1300	1.32	1766.59	701	14.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8645148.508
5573540	10/7/2014	1300	1.32	1766.59	701	14.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8645148.508
5573540	5/19/2011	1290	1.32	1753.40	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8580607.608
5573540	6/18/1990	1290	1.32	1753.40	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8580607.608
5573540	6/5/1993	1290	1.32	1753.40	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8580607.608
5573540	6/9/1995	1290	1.32	1753.40	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8580607.608
5573540	6/15/1996	1290	1.32	1753.40	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8580607.608
5573540	6/13/1997	1290	1.32	1753.40	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8580607.608
5573540	6/26/1999	1290	1.32	1753.40	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8580607.608
5573540	7/24/1990	1290	1.32	1753.40	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8580607.608
5573540	7/19/1993	1290	1.32	1753.40	706	14.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8580607.608
5573540	5/9/1993	1280	1.32	1740.21	715	14.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8516066.709
5573540	6/7/2014	1280	1.32	1740.21	715	14.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8516066.709
5573540	7/26/2010	1280	1.32	1740.21	715	14.9425%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8516066.709
5573540	5/6/1993	1270	1.32	1727.02	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8451525.809
5573540	5/21/1996	1270	1.32	1727.02	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8451525.809
5573540	5/12/2010	1270	1.32	1727.02	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8451525.809
5573540	5/13/2014	1270	1.32	1727.02	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8451525.809
5573540	6/12/1990	1270	1.32	1727.02	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8451525.809
5573540	6/2/2004	1270	1.32	1727.02	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8451525.809
5573540	6/9/2010	1270	1.32	1727.02	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8451525.809
5573540	6/30/2010	1270	1.32	1727.02	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8451525.809
5573540	7/1/1997	1270	1.32	1727.02	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8451525.809
5573540	7/11/2003	1270	1.32	1727.02	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8451525.809
5573540	8/31/2009	1270	1.32	1727.02	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8451525.809
5573540	9/3/2003	1270	1.32	1727.02	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8451525.809
5573540	10/27/2008	1270	1.32	1727.02	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8451525.809
5573540	10/8/2014	1270	1.32	1727.02	718	15.0052%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8451525.809
5573540	5/13/2015	1260	1.32	1713.83	732	15.2978%	Fecal_coliform	445	cfu/100mL	200	283.2	18661041.42	8386984.909
5573540	6/22/2000	1260	1.32	1713.83	732	15.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8386984.909
5573540	7/11/2013	1260	1.32	1713.83	732	15.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8386984.909
5573540	9/17/2014	1260	1.32	1713.83	732	15.2978%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8386984.909
5573540	5/15/1994	1250	1.32	1700.65	736	15.3814%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8322444.009

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/16/1996	1250	1.32	1700.65	736	15.3814%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8322444.009
5573540	6/20/2002	1250	1.32	1700.65	736	15.3814%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8322444.009
5573540	5/21/2014	1240	1.32	1687.46	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8257903.109
5573540	6/22/1996	1240	1.32	1687.46	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8257903.109
5573540	6/8/1999	1240	1.32	1687.46	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8257903.109
5573540	6/27/2000	1240	1.32	1687.46	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8257903.109
5573540	6/29/2011	1240	1.32	1687.46	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8257903.109
5573540	7/14/1993	1240	1.32	1687.46	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8257903.109
5573540	7/12/2003	1240	1.32	1687.46	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8257903.109
5573540	8/28/2002	1240	1.32	1687.46	739	15.4441%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8257903.109
5573540	5/5/1991	1230	1.32	1674.27	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8193362.209
5573540	5/14/1991	1230	1.32	1674.27	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8193362.209
5573540	5/16/2003	1230	1.32	1674.27	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8193362.209
5573540	7/27/1990	1230	1.32	1674.27	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8193362.209
5573540	7/18/1993	1230	1.32	1674.27	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8193362.209
5573540	8/31/2004	1230	1.32	1674.27	747	15.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8193362.209
5573540	5/7/1991	1220	1.32	1661.08	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8128821.309
5573540	5/3/1993	1220	1.32	1661.08	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8128821.309
5573540	5/13/1994	1220	1.32	1661.08	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8128821.309
5573540	5/17/1998	1220	1.32	1661.08	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8128821.309
5573540	6/2/1997	1220	1.32	1661.08	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8128821.309
5573540	6/17/1999	1220	1.32	1661.08	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8128821.309
5573540	6/17/2011	1220	1.32	1661.08	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8128821.309
5573540	6/25/2013	1220	1.32	1661.08	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8128821.309
5573540	6/6/2014	1220	1.32	1661.08	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8128821.309
5573540	7/7/1998	1220	1.32	1661.08	753	15.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8128821.309
5573540	5/24/1996	1210	1.32	1647.89	763	15.9457%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8064280.409
5573540	5/29/1998	1210	1.32	1647.89	763	15.9457%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8064280.409
5573540	5/25/2008	1210	1.32	1647.89	763	15.9457%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8064280.409
5573540	5/6/2011	1210	1.32	1647.89	763	15.9457%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	8064280.409
5573540	5/12/2009	1200	1.32	1634.70	767	16.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7999739.509
5573540	5/27/2013	1200	1.32	1634.70	767	16.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7999739.509
5573540	7/3/2013	1200	1.32	1634.70	767	16.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7999739.509
5573540	8/13/1993	1200	1.32	1634.70	767	16.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7999739.509
5573540	8/23/1993	1200	1.32	1634.70	767	16.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7999739.509
5573540	5/16/1994	1190	1.32	1621.51	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7935198.609
5573540	5/22/1996	1190	1.32	1621.51	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7935198.609
5573540	5/25/2004	1190	1.32	1621.51	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7935198.609
5573540	6/13/1990	1190	1.32	1621.51	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7935198.609
5573540	6/1/1997	1190	1.32	1621.51	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7935198.609
5573540	6/10/2015	1190	1.32	1621.51	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7935198.609
5573540	7/10/2003	1190	1.32	1621.51	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7935198.609
5573540	7/20/2010	1190	1.32	1621.51	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7935198.609
5573540	10/25/2008	1190	1.32	1621.51	772	16.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7935198.609
5573540	5/23/1996	1180	1.32	1608.33	781	16.3218%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7870657.709
5573540	5/31/1997	1180	1.32	1608.33	781	16.3218%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7870657.709

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/31/2000	1180	1.32	1608.33	781	16.3218%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7870657.709
5573540	5/8/2013	1180	1.32	1608.33	781	16.3218%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7870657.709
5573540	7/10/1998	1180	1.32	1608.33	781	16.3218%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7870657.709
5573540	5/31/1990	1170	1.32	1595.14	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7806116.809
5573540	5/31/2008	1170	1.32	1595.14	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7806116.809
5573540	5/25/2011	1170	1.32	1595.14	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7806116.809
5573540	6/12/1997	1170	1.32	1595.14	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7806116.809
5573540	7/16/1992	1170	1.32	1595.14	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7806116.809
5573540	7/5/2015	1170	1.32	1595.14	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7806116.809
5573540	10/26/2008	1170	1.32	1595.14	786	16.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7806116.809
5573540	5/27/1991	1160	1.32	1581.95	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7741575.909
5573540	5/18/1998	1160	1.32	1581.95	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7741575.909
5573540	5/26/2009	1160	1.32	1581.95	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7741575.909
5573540	5/20/2014	1160	1.32	1581.95	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7741575.909
5573540	6/15/1997	1160	1.32	1581.95	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7741575.909
5573540	6/16/1997	1160	1.32	1581.95	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7741575.909
5573540	6/19/2003	1160	1.32	1581.95	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7741575.909
5573540	7/18/2015	1160	1.32	1581.95	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7741575.909
5573540	10/28/2008	1160	1.32	1581.95	793	16.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7741575.909
5573540	5/20/2011	1150	1.32	1568.76	802	16.7607%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7677035.009
5573540	8/3/1992	1150	1.32	1568.76	802	16.7607%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7677035.009
5573540	9/4/2003	1150	1.32	1568.76	802	16.7607%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7677035.009
5573540	5/8/1995	1140	1.32	1555.57	805	16.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7612494.109
5573540	5/17/2011	1140	1.32	1555.57	805	16.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7612494.109
5573540	6/14/1993	1140	1.32	1555.57	805	16.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7612494.109
5573540	6/24/1995	1140	1.32	1555.57	805	16.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7612494.109
5573540	6/25/2009	1130	1.32	1542.38	809	16.9070%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7547953.209
5573540	7/6/2009	1130	1.32	1542.38	809	16.9070%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7547953.209
5573540	5/6/1997	1120	1.32	1529.19	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7483412.309
5573540	5/26/2002	1120	1.32	1529.19	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7483412.309
5573540	5/30/2002	1120	1.32	1529.19	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7483412.309
5573540	7/7/1992	1120	1.32	1529.19	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7483412.309
5573540	7/11/1993	1120	1.32	1529.19	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7483412.309
5573540	7/7/2000	1120	1.32	1529.19	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7483412.309
5573540	7/23/2008	1120	1.32	1529.19	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7483412.309
5573540	7/1/2014	1120	1.32	1529.19	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7483412.309
5573540	8/20/1993	1120	1.32	1529.19	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7483412.309
5573540	9/2/2003	1120	1.32	1529.19	811	16.9488%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7483412.309
5573540	5/10/1993	1110	1.32	1516.01	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7418871.41
5573540	6/11/1997	1110	1.32	1516.01	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7418871.41
5573540	6/12/1999	1110	1.32	1516.01	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7418871.41
5573540	6/1/2002	1110	1.32	1516.01	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7418871.41
5573540	6/6/2015	1110	1.32	1516.01	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7418871.41
5573540	7/8/1992	1110	1.32	1516.01	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7418871.41
5573540	7/5/2009	1110	1.32	1516.01	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7418871.41
5573540	7/1/2010	1110	1.32	1516.01	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7418871.41

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/13/1999	1110	1.32	1516.01	821	17.1578%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7418871.41
5573540	5/11/1993	1100	1.32	1502.82	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7354330.51
5573540	5/21/1998	1100	1.32	1502.82	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7354330.51
5573540	5/26/2008	1100	1.32	1502.82	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7354330.51
5573540	5/17/2010	1100	1.32	1502.82	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7354330.51
5573540	5/18/2011	1100	1.32	1502.82	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7354330.51
5573540	6/18/1999	1100	1.32	1502.82	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7354330.51
5573540	7/12/2000	1100	1.32	1502.82	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7354330.51
5573540	7/10/2013	1100	1.32	1502.82	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7354330.51
5573540	10/28/2004	1100	1.32	1502.82	830	17.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7354330.51
5573540	5/25/2002	1090	1.32	1489.63	839	17.5340%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7289789.61
5573540	6/10/2011	1090	1.32	1489.63	839	17.5340%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7289789.61
5573540	6/20/2011	1090	1.32	1489.63	839	17.5340%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7289789.61
5573540	5/16/1999	1080	1.32	1476.44	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7225248.71
5573540	5/2/2013	1080	1.32	1476.44	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7225248.71
5573540	6/8/1997	1080	1.32	1476.44	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7225248.71
5573540	7/15/1992	1080	1.32	1476.44	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7225248.71
5573540	7/17/2003	1080	1.32	1476.44	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7225248.71
5573540	7/8/2015	1080	1.32	1476.44	842	17.5967%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7225248.71
5573540	5/3/1996	1070	1.32	1463.25	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7160707.81
5573540	5/7/2011	1070	1.32	1463.25	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7160707.81
5573540	5/8/2011	1070	1.32	1463.25	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7160707.81
5573540	5/14/2015	1070	1.32	1463.25	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7160707.81
5573540	6/4/1993	1070	1.32	1463.25	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7160707.81
5573540	6/21/1996	1070	1.32	1463.25	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7160707.81
5573540	6/17/1997	1070	1.32	1463.25	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7160707.81
5573540	6/18/2003	1070	1.32	1463.25	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7160707.81
5573540	7/13/2013	1070	1.32	1463.25	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7160707.81
5573540	8/20/2006	1070	1.32	1463.25	848	17.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7160707.81
5573540	5/1/1995	1060	1.32	1450.06	858	17.9310%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7096166.91
5573540	5/27/2008	1060	1.32	1450.06	858	17.9310%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7096166.91
5573540	6/9/1997	1060	1.32	1450.06	858	17.9310%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7096166.91
5573540	6/10/1997	1060	1.32	1450.06	858	17.9310%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7096166.91
5573540	9/1/2004	1060	1.32	1450.06	858	17.9310%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7096166.91
5573540	5/27/2002	1050	1.32	1436.87	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7031626.01
5573540	5/16/2015	1050	1.32	1436.87	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7031626.01
5573540	6/7/1997	1050	1.32	1436.87	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7031626.01
5573540	6/16/2008	1050	1.32	1436.87	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7031626.01
5573540	6/15/2014	1050	1.32	1436.87	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7031626.01
5573540	9/15/2014	1050	1.32	1436.87	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7031626.01
5573540	10/19/1990	1050	1.32	1436.87	863	18.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	7031626.01
5573540	5/28/1991	1040	1.32	1423.69	870	18.1818%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6967085.11
5573540	5/30/1997	1040	1.32	1423.69	870	18.1818%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6967085.11
5573540	5/24/2014	1040	1.32	1423.69	870	18.1818%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6967085.11
5573540	10/27/2001	1040	1.32	1423.69	870	18.1818%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6967085.11
5573540	5/5/1997	1030	1.32	1410.50	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6902544.21

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/8/1990	1030	1.32	1410.50	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6902544.21
5573540	6/10/1998	1030	1.32	1410.50	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6902544.21
5573540	6/12/2001	1030	1.32	1410.50	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6902544.21
5573540	7/8/2000	1030	1.32	1410.50	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6902544.21
5573540	10/30/2004	1030	1.32	1410.50	874	18.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6902544.21
5573540	5/9/1992	1020	1.32	1397.31	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6838003.31
5573540	5/7/1996	1020	1.32	1397.31	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6838003.31
5573540	5/13/2013	1020	1.32	1397.31	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6838003.31
5573540	5/14/2014	1020	1.32	1397.31	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6838003.31
5573540	6/9/1990	1020	1.32	1397.31	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6838003.31
5573540	6/30/1997	1020	1.32	1397.31	880	18.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6838003.31
5573540	5/15/1991	1010	1.32	1384.12	886	18.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6773462.41
5573540	6/27/1995	1010	1.32	1384.12	886	18.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6773462.41
5573540	6/4/1999	1010	1.32	1384.12	886	18.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6773462.41
5573540	6/28/2000	1010	1.32	1384.12	886	18.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6773462.41
5573540	10/20/2014	1010	1.32	1384.12	886	18.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6773462.41
5573540	5/1/1991	1000	1.32	1370.93	891	18.6207%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6708921.51
5573540	6/16/1995	996	1.32	1365.66	892	18.6416%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6683105.15
5573540	5/7/2003	995	1.32	1364.34	893	18.6625%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6676651.06
5573540	6/17/2008	993	1.32	1361.70	894	18.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6663742.88
5573540	6/21/2011	991	1.32	1359.06	895	18.7043%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6650834.7
5573540	6/4/1990	989	1.32	1356.42	896	18.7252%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6637926.52
5573540	6/23/1993	985	1.32	1351.15	897	18.7461%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6612110.16
5573540	6/23/1995	984	1.32	1349.83	898	18.7670%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6605656.07
5573540	7/12/1993	984	1.32	1349.83	898	18.7670%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6605656.07
5573540	5/25/1996	982	1.32	1347.19	900	18.8088%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6592747.89
5573540	6/24/1993	982	1.32	1347.19	900	18.8088%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6592747.89
5573540	6/3/2009	980	1.32	1344.55	902	18.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6579839.71
5573540	5/22/2014	979	1.32	1343.24	903	18.8715%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6573385.62
5573540	6/28/2014	979	1.32	1343.24	903	18.8715%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6573385.62
5573540	7/21/1993	979	1.32	1343.24	903	18.8715%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6573385.62
5573540	6/19/1999	978	1.32	1341.92	906	18.9342%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6566931.53
5573540	6/26/1995	977	1.32	1340.60	907	18.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6560477.44
5573540	5/31/2015	976	1.32	1339.28	908	18.9760%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6554023.35
5573540	5/15/2015	975	1.32	1337.96	909	18.9969%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6547569.26
5573540	6/24/2013	975	1.32	1337.96	909	18.9969%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6547569.26
5573540	10/22/1990	975	1.32	1337.96	909	18.9969%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6547569.26
5573540	5/30/2000	973	1.32	1335.32	912	19.0596%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6534661.08
5573540	5/30/1998	972	1.32	1334.00	913	19.0805%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6528206.99
5573540	10/9/2014	970	1.32	1331.37	914	19.1014%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6515298.81
5573540	5/24/2004	969	1.32	1330.05	915	19.1223%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6508844.72
5573540	5/16/2013	968	1.32	1328.73	916	19.1432%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6502390.63
5573540	6/15/2005	968	1.32	1328.73	916	19.1432%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6502390.63
5573540	6/13/2001	966	1.32	1326.09	918	19.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6489482.45
5573540	5/20/1998	962	1.32	1320.81	919	19.2059%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6463666.09
5573540	5/28/1997	961	1.32	1319.50	920	19.2268%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6457212

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/4/2009	960	1.32	1318.18	921	19.2476%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6450757.91
5573540	8/14/1993	958	1.32	1315.54	922	19.2685%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6437849.73
5573540	6/20/1996	956	1.32	1312.90	923	19.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6424941.55
5573540	6/8/2015	956	1.32	1312.90	923	19.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6424941.55
5573540	6/22/2011	955	1.32	1311.58	925	19.3312%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6418487.46
5573540	5/17/2003	954	1.32	1310.26	926	19.3521%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6412033.37
5573540	5/23/2014	953	1.32	1308.95	927	19.3730%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6405579.28
5573540	6/22/1993	953	1.32	1308.95	927	19.3730%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6405579.28
5573540	5/16/2010	950	1.32	1304.99	929	19.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6386217.01
5573540	6/7/2009	950	1.32	1304.99	929	19.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6386217.01
5573540	5/31/2014	949	1.32	1303.67	931	19.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6379762.921
5573540	5/27/2010	947	1.32	1301.03	932	19.4775%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6366854.741
5573540	6/6/2009	947	1.32	1301.03	932	19.4775%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6366854.741
5573540	6/5/2009	942	1.32	1294.44	934	19.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6334584.291
5573540	5/14/1999	941	1.32	1293.12	935	19.5402%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6328130.201
5573540	6/21/1993	940	1.32	1291.80	936	19.5611%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6321676.111
5573540	7/19/2008	940	1.32	1291.80	936	19.5611%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6321676.111
5573540	6/11/1993	939	1.32	1290.48	938	19.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6315222.021
5573540	10/13/2009	939	1.32	1290.48	938	19.6029%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6315222.021
5573540	6/27/1999	935	1.32	1285.21	940	19.6447%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6289405.661
5573540	9/18/2014	934	1.32	1283.89	941	19.6656%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6282951.571
5573540	5/17/1993	932	1.32	1281.25	942	19.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6270043.391
5573540	6/5/1997	930	1.32	1278.61	943	19.7074%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6257135.211
5573540	10/30/2001	930	1.32	1278.61	943	19.7074%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6257135.211
5573540	5/6/2002	927	1.32	1274.65	945	19.7492%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6237772.941
5573540	5/29/2009	927	1.32	1274.65	945	19.7492%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6237772.941
5573540	6/23/2011	924	1.32	1270.70	947	19.7910%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6218410.671
5573540	6/2/2002	923	1.32	1269.38	948	19.8119%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6211956.581
5573540	5/30/2009	922	1.32	1268.06	949	19.8328%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6205502.491
5573540	8/1/1993	920	1.32	1265.42	950	19.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6192594.311
5573540	6/7/1990	919	1.32	1264.10	951	19.8746%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6186140.221
5573540	6/12/2009	919	1.32	1264.10	951	19.8746%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6186140.221
5573540	7/13/2004	917	1.32	1261.47	953	19.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6173232.041
5573540	6/13/1993	913	1.32	1256.19	954	19.9373%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6147415.681
5573540	6/1/2000	913	1.32	1256.19	954	19.9373%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6147415.681
5573540	7/19/2015	912	1.32	1254.87	956	19.9791%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6140961.591
5573540	5/13/1999	911	1.32	1253.55	957	20.0000%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6134507.501
5573540	5/9/2011	910	1.32	1252.23	958	20.0209%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6128053.411
5573540	6/3/1990	909	1.32	1250.92	959	20.0418%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6121599.321
5573540	6/21/2000	909	1.32	1250.92	959	20.0418%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6121599.321
5573540	7/21/2003	908	1.32	1249.60	961	20.0836%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6115145.231
5573540	6/9/1992	905	1.32	1245.64	962	20.1045%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6095782.961
5573540	9/22/1993	905	1.32	1245.64	962	20.1045%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6095782.961
5573540	10/14/2009	904	1.32	1244.32	964	20.1463%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6089328.871
5573540	7/27/1996	903	1.32	1243.00	965	20.1672%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6082874.781
5573540	6/6/1995	902	1.32	1241.68	966	20.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6076420.691

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/17/1996	902	1.32	1241.68	966	20.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6076420.691
5573540	7/11/1998	902	1.32	1241.68	966	20.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6076420.691
5573540	5/1/1999	901	1.32	1240.36	969	20.2508%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6069966.601
5573540	10/20/1990	900	1.32	1239.05	970	20.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6063512.511
5573540	6/26/2009	899	1.32	1237.73	971	20.2926%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6057058.421
5573540	7/10/2004	895	1.32	1232.45	972	20.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6031242.061
5573540	9/2/2009	895	1.32	1232.45	972	20.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6031242.061
5573540	6/19/1996	894	1.32	1231.13	974	20.3553%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6024787.971
5573540	5/4/2006	893	1.32	1229.81	975	20.3762%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6018333.881
5573540	5/4/1997	892	1.32	1228.49	976	20.3971%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6011879.791
5573540	6/9/1998	891	1.32	1227.18	977	20.4180%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6005425.701
5573540	8/28/2006	891	1.32	1227.18	977	20.4180%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6005425.701
5573540	10/5/1993	891	1.32	1227.18	977	20.4180%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	6005425.701
5573540	10/18/2006	889	1.32	1224.54	980	20.4807%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5992517.521
5573540	6/8/2010	888	1.32	1223.22	981	20.5016%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5986063.431
5573540	10/29/2004	888	1.32	1223.22	981	20.5016%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5986063.431
5573540	5/31/2009	887	1.32	1221.90	983	20.5434%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5979609.341
5573540	5/7/1997	885	1.32	1219.26	984	20.5643%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5966701.161
5573540	5/29/2002	885	1.32	1219.26	984	20.5643%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5966701.161
5573540	5/31/2002	883	1.32	1216.63	986	20.6061%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5953792.981
5573540	5/17/2015	882	1.32	1215.31	987	20.6270%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5947338.891
5573540	6/25/1995	880	1.32	1212.67	988	20.6479%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5934430.711
5573540	5/18/2003	876	1.32	1207.39	989	20.6688%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5908614.351
5573540	5/27/2009	872	1.32	1202.12	990	20.6897%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5882797.991
5573540	6/1/1998	868	1.32	1196.84	991	20.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5856981.631
5573540	6/27/2009	868	1.32	1196.84	991	20.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5856981.631
5573540	7/25/1993	868	1.32	1196.84	991	20.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5856981.631
5573540	7/4/2013	868	1.32	1196.84	991	20.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5856981.631
5573540	5/8/2003	867	1.32	1195.52	995	20.7941%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5850527.541
5573540	6/28/1995	867	1.32	1195.52	995	20.7941%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5850527.541
5573540	5/15/1999	866	1.32	1194.20	997	20.8359%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5844073.451
5573540	5/6/1999	865	1.32	1192.89	998	20.8568%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5837619.361
5573540	5/21/2013	865	1.32	1192.89	998	20.8568%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5837619.361
5573540	8/30/2009	863	1.32	1190.25	1000	20.8986%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5824711.181
5573540	9/25/2008	863	1.32	1190.25	1000	20.8986%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5824711.181
5573540	6/11/2002	861	1.32	1187.61	1002	20.9404%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5811803.001
5573540	6/25/1999	860	1.32	1186.29	1003	20.9613%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5805348.911
5573540	5/17/1994	857	1.32	1182.33	1004	20.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5785986.641
5573540	6/15/2000	857	1.32	1182.33	1004	20.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5785986.641
5573540	7/13/1993	856	1.32	1181.02	1006	21.0240%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5779532.551
5573540	7/5/1998	856	1.32	1181.02	1006	21.0240%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5779532.551
5573540	6/14/2011	855	1.32	1179.70	1008	21.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5773078.461
5573540	7/22/2003	855	1.32	1179.70	1008	21.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5773078.461
5573540	5/15/2010	854	1.32	1178.38	1010	21.1076%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5766624.371
5573540	10/21/2006	854	1.32	1178.38	1010	21.1076%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5766624.371
5573540	5/14/2011	853	1.32	1177.06	1012	21.1494%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5760170.281

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/23/2013	853	1.32	1177.06	1012	21.1494%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5760170.281
5573540	7/23/1993	851	1.32	1174.42	1014	21.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5747262.101
5573540	5/28/2002	849	1.32	1171.78	1015	21.2121%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5734353.921
5573540	6/6/2002	848	1.32	1170.46	1016	21.2330%	Fecal_coliform	1300	cfu/100mL	200	283.2	37231348.9	5727899.831
5573540	6/9/1991	847	1.32	1169.15	1017	21.2539%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5721445.741
5573540	6/1/1990	845	1.32	1166.51	1018	21.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5708537.561
5573540	8/22/1993	845	1.32	1166.51	1018	21.2748%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5708537.561
5573540	8/24/1993	843	1.32	1163.87	1020	21.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5695629.381
5573540	7/6/1998	842	1.32	1162.55	1021	21.3375%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5689175.291
5573540	5/19/1994	841	1.32	1161.23	1022	21.3584%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5682721.201
5573540	7/14/2006	839	1.32	1158.60	1023	21.3793%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5669813.021
5573540	6/28/1999	838	1.32	1157.28	1024	21.4002%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5663358.931
5573540	5/2/1999	835	1.32	1153.32	1025	21.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5643996.661
5573540	5/5/2008	835	1.32	1153.32	1025	21.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5643996.661
5573540	6/8/2009	835	1.32	1153.32	1025	21.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5643996.661
5573540	5/28/2010	834	1.32	1152.00	1028	21.4838%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5637542.571
5573540	7/2/2010	834	1.32	1152.00	1028	21.4838%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5637542.571
5573540	5/26/1991	833	1.32	1150.68	1030	21.5256%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5631088.481
5573540	5/25/1994	830	1.32	1146.73	1031	21.5465%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5611726.211
5573540	9/21/1993	830	1.32	1146.73	1031	21.5465%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5611726.211
5573540	10/18/2009	829	1.32	1145.41	1033	21.5883%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5605272.121
5573540	5/21/2011	828	1.32	1144.09	1034	21.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5598818.031
5573540	6/11/2009	828	1.32	1144.09	1034	21.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5598818.031
5573540	7/14/2013	828	1.32	1144.09	1034	21.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5598818.031
5573540	5/3/1990	827	1.32	1142.77	1037	21.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5592363.941
5573540	6/18/1996	827	1.32	1142.77	1037	21.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5592363.941
5573540	6/24/2004	826	1.32	1141.45	1039	21.7137%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5585909.851
5573540	6/11/2001	822	1.32	1136.17	1040	21.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5560093.491
5573540	6/6/1997	820	1.32	1133.54	1041	21.7555%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5547185.311
5573540	5/22/2013	818	1.32	1130.90	1042	21.7764%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5534277.131
5573540	5/4/1991	814	1.32	1125.62	1043	21.7973%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5508460.771
5573540	6/8/2011	814	1.32	1125.62	1043	21.7973%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5508460.771
5573540	10/21/2014	814	1.32	1125.62	1043	21.7973%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5508460.771
5573540	5/3/1995	813	1.32	1124.30	1046	21.8600%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5502006.681
5573540	6/18/1997	813	1.32	1124.30	1046	21.8600%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5502006.681
5573540	5/11/2010	812	1.32	1122.99	1048	21.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5495552.591
5573540	6/6/1990	812	1.32	1122.99	1048	21.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5495552.591
5573540	7/1/2011	811	1.32	1121.67	1050	21.9436%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5489098.501
5573540	6/3/2010	810	1.32	1120.35	1051	21.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5482644.411
5573540	5/3/2006	809	1.32	1119.03	1052	21.9854%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5476190.321
5573540	6/26/1993	809	1.32	1119.03	1052	21.9854%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5476190.321
5573540	6/7/2002	809	1.32	1119.03	1052	21.9854%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5476190.321
5573540	10/7/2000	804	1.32	1112.44	1055	22.0481%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5443919.871
5573540	5/29/1997	802	1.32	1109.80	1056	22.0690%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5431011.691
5573540	5/8/2012	801	1.32	1108.48	1057	22.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5424557.601
5573540	5/25/2010	800	1.32	1107.16	1058	22.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5418103.511

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/30/2011	800	1.32	1107.16	1058	22.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5418103.511
5573540	7/1/2007	798	1.32	1104.52	1060	22.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5405195.331
5573540	5/6/2008	797	1.32	1103.20	1061	22.1735%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5398741.241
5573540	5/6/2003	796	1.32	1101.88	1062	22.1944%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5392287.151
5573540	6/1/1993	795	1.32	1100.57	1063	22.2153%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5385833.061
5573540	8/1/2006	795	1.32	1100.57	1063	22.2153%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5385833.061
5573540	6/28/2009	793	1.32	1097.93	1065	22.2571%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5372924.881
5573540	6/19/2008	789	1.32	1092.65	1066	22.2780%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5347108.521
5573540	6/2/2000	788	1.32	1091.33	1067	22.2989%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5340654.431
5573540	6/8/2002	788	1.32	1091.33	1067	22.2989%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5340654.431
5573540	6/2/1990	787	1.32	1090.01	1069	22.3406%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5334200.341
5573540	6/2/2010	787	1.32	1090.01	1069	22.3406%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5334200.341
5573540	6/29/1999	786	1.32	1088.70	1071	22.3824%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5327746.251
5573540	7/13/2000	786	1.32	1088.70	1071	22.3824%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5327746.251
5573540	6/30/2007	785	1.32	1087.38	1073	22.4242%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5321292.161
5573540	7/16/2004	784	1.32	1086.06	1074	22.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5314838.072
5573540	5/22/1998	782	1.32	1083.42	1075	22.4660%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5301929.892
5573540	7/19/1992	782	1.32	1083.42	1075	22.4660%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5301929.892
5573540	5/12/1993	780	1.32	1080.78	1077	22.5078%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5289021.712
5573540	10/20/2001	780	1.32	1080.78	1077	22.5078%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5289021.712
5573540	5/1/2006	779	1.32	1079.46	1079	22.5496%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5282567.622
5573540	7/22/1993	779	1.32	1079.46	1079	22.5496%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5282567.622
5573540	5/31/2010	776	1.32	1075.51	1081	22.5914%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5263205.352
5573540	7/15/2004	775	1.32	1074.19	1082	22.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5256751.262
5573540	5/24/2013	772	1.32	1070.23	1083	22.6332%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5237388.992
5573540	6/9/2013	772	1.32	1070.23	1083	22.6332%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5237388.992
5573540	7/9/2014	772	1.32	1070.23	1083	22.6332%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5237388.992
5573540	5/2/2006	771	1.32	1068.91	1086	22.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5230934.902
5573540	5/26/1994	770	1.32	1067.59	1087	22.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5224480.812
5573540	5/30/2010	770	1.32	1067.59	1087	22.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5224480.812
5573540	6/3/1997	770	1.32	1067.59	1087	22.7168%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5224480.812
5573540	7/12/2013	769	1.32	1066.28	1090	22.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5218026.722
5573540	5/28/2009	765	1.32	1061.00	1091	22.8004%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5192210.362
5573540	6/11/1999	763	1.32	1058.36	1092	22.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5179302.182
5573540	6/13/2009	763	1.32	1058.36	1092	22.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5179302.182
5573540	6/10/2004	762	1.32	1057.04	1094	22.8631%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5172848.092
5573540	6/24/2011	762	1.32	1057.04	1094	22.8631%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5172848.092
5573540	5/28/2008	759	1.32	1053.09	1096	22.9049%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5153485.822
5573540	6/9/2002	759	1.32	1053.09	1096	22.9049%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5153485.822
5573540	6/5/2010	758	1.32	1051.77	1098	22.9467%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5147031.732
5573540	9/24/2008	758	1.32	1051.77	1098	22.9467%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5147031.732
5573540	7/11/1990	757	1.32	1050.45	1100	22.9885%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5140577.642
5573540	7/27/2010	756	1.32	1049.13	1101	23.0094%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5134123.552
5573540	5/18/1993	753	1.32	1045.17	1102	23.0303%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5114761.282
5573540	7/1/2008	753	1.32	1045.17	1102	23.0303%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5114761.282
5573540	6/5/1998	751	1.32	1042.54	1104	23.0721%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5101853.102

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/25/2007	751	1.32	1042.54	1104	23.0721%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5101853.102
5573540	6/1/2010	750	1.32	1041.22	1106	23.1139%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5095399.012
5573540	7/14/2004	750	1.32	1041.22	1106	23.1139%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5095399.012
5573540	8/8/1995	750	1.32	1041.22	1106	23.1139%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5095399.012
5573540	6/4/2010	749	1.32	1039.90	1109	23.1766%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5088944.922
5573540	7/3/2008	749	1.32	1039.90	1109	23.1766%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5088944.922
5573540	5/20/1994	748	1.32	1038.58	1111	23.2184%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5082490.832
5573540	6/20/2003	748	1.32	1038.58	1111	23.2184%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5082490.832
5573540	6/4/1991	747	1.32	1037.26	1113	23.2602%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5076036.742
5573540	6/5/2001	747	1.32	1037.26	1113	23.2602%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5076036.742
5573540	7/12/2004	747	1.32	1037.26	1113	23.2602%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5076036.742
5573540	6/13/2011	746	1.32	1035.94	1116	23.3229%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5069582.652
5573540	5/17/1999	745	1.32	1034.62	1117	23.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5063128.562
5573540	5/26/2010	745	1.32	1034.62	1117	23.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5063128.562
5573540	5/18/2015	745	1.32	1034.62	1117	23.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5063128.562
5573540	6/25/1993	744	1.32	1033.30	1120	23.4065%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5056674.472
5573540	5/5/2006	743	1.32	1031.98	1121	23.4274%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5050220.382
5573540	5/8/2008	742	1.32	1030.67	1122	23.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5043766.292
5573540	6/29/2014	742	1.32	1030.67	1122	23.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5043766.292
5573540	8/29/2002	741	1.32	1029.35	1124	23.4901%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5037312.202
5573540	10/21/1990	741	1.32	1029.35	1124	23.4901%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5037312.202
5573540	7/22/2013	739	1.32	1026.71	1126	23.5319%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5024404.022
5573540	5/31/1998	737	1.32	1024.07	1127	23.5528%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	5011495.842
5573540	6/6/2010	734	1.32	1020.12	1128	23.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4992133.572
5573540	10/8/1993	734	1.32	1020.12	1128	23.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4992133.572
5573540	6/30/1999	732	1.32	1017.48	1130	23.6155%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4979225.392
5573540	5/25/2014	731	1.32	1016.16	1131	23.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4972771.302
5573540	5/5/1999	730	1.32	1014.84	1132	23.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4966317.212
5573540	5/30/2008	730	1.32	1014.84	1132	23.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4966317.212
5573540	8/15/1993	730	1.32	1014.84	1132	23.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4966317.212
5573540	5/15/2013	728	1.32	1012.20	1135	23.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4953409.032
5573540	7/24/1993	728	1.32	1012.20	1135	23.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4953409.032
5573540	5/21/1994	723	1.32	1005.61	1137	23.7618%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4921138.582
5573540	6/4/1997	719	1.32	1000.33	1138	23.7827%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4895322.222
5573540	6/10/2013	719	1.32	1000.33	1138	23.7827%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4895322.222
5573540	7/20/2008	719	1.32	1000.33	1138	23.7827%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4895322.222
5573540	6/7/2010	718	1.32	999.01	1141	23.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4888868.132
5573540	10/20/2006	718	1.32	999.01	1141	23.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4888868.132
5573540	5/3/1997	717	1.32	997.69	1143	23.8871%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4882414.042
5573540	5/21/2003	717	1.32	997.69	1143	23.8871%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4882414.042
5573540	6/12/1993	717	1.32	997.69	1143	23.8871%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4882414.042
5573540	5/9/2003	716	1.32	996.38	1146	23.9498%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4875959.952
5573540	8/4/1992	716	1.32	996.38	1146	23.9498%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4875959.952
5573540	6/24/2007	715	1.32	995.06	1148	23.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4869505.862
5573540	7/28/1996	715	1.32	995.06	1148	23.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4869505.862
5573540	5/13/1991	713	1.32	992.42	1150	24.0334%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4856597.682

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/22/2006	712	1.32	991.10	1151	24.0543%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4850143.592
5573540	6/21/2002	711	1.32	989.78	1152	24.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4843689.502
5573540	6/29/2007	711	1.32	989.78	1152	24.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4843689.502
5573540	9/14/1993	711	1.32	989.78	1152	24.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4843689.502
5573540	6/22/2002	710	1.32	988.46	1155	24.1379%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4837235.412
5573540	7/11/2000	710	1.32	988.46	1155	24.1379%	Fecal_coliform	420	cfu/100mL	200	283.2	10158194.37	4837235.412
5573540	7/17/1992	709	1.32	987.14	1157	24.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4830781.322
5573540	5/10/2010	708	1.32	985.82	1158	24.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4824327.232
5573540	6/10/1999	708	1.32	985.82	1158	24.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4824327.232
5573540	7/26/1996	708	1.32	985.82	1158	24.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4824327.232
5573540	9/26/2008	708	1.32	985.82	1158	24.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4824327.232
5573540	6/5/1990	706	1.32	983.19	1162	24.2842%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4811419.052
5573540	7/10/2009	705	1.32	981.87	1163	24.3051%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4804964.962
5573540	7/2/2011	705	1.32	981.87	1163	24.3051%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4804964.962
5573540	6/8/2004	704	1.32	980.55	1165	24.3469%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4798510.872
5573540	8/25/1993	704	1.32	980.55	1165	24.3469%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4798510.872
5573540	7/18/1992	702	1.32	977.91	1167	24.3887%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4785602.692
5573540	7/23/2003	702	1.32	977.91	1167	24.3887%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4785602.692
5573540	5/24/1992	701	1.32	976.59	1169	24.4305%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4779148.602
5573540	5/2/2010	701	1.32	976.59	1169	24.4305%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4779148.602
5573540	6/1/2009	700	1.32	975.27	1171	24.4723%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4772694.512
5573540	6/14/2009	700	1.32	975.27	1171	24.4723%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4772694.512
5573540	6/1/2014	700	1.32	975.27	1171	24.4723%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4772694.512
5573540	6/25/2004	699	1.32	973.96	1174	24.5350%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4766240.422
5573540	6/23/2008	698	1.32	972.64	1175	24.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4759786.332
5573540	7/7/1990	698	1.32	972.64	1175	24.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4759786.332
5573540	5/15/2011	695	1.32	968.68	1177	24.5977%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4740424.062
5573540	7/29/2008	694	1.32	967.36	1178	24.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4733969.972
5573540	6/4/1998	693	1.32	966.04	1179	24.6395%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4727515.882
5573540	8/5/1992	693	1.32	966.04	1179	24.6395%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4727515.882
5573540	5/15/2006	692	1.32	964.72	1181	24.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4721061.792
5573540	10/29/2008	691	1.32	963.40	1182	24.7022%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4714607.702
5573540	9/5/2003	690	1.32	962.09	1183	24.7231%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4708153.612
5573540	6/22/2008	689	1.32	960.77	1184	24.7440%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4701699.522
5573540	10/21/2004	688	1.32	959.45	1185	24.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4695245.432
5573540	5/7/2012	686	1.32	956.81	1186	24.7858%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4682337.252
5573540	6/20/2008	686	1.32	956.81	1186	24.7858%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4682337.252
5573540	7/11/2009	686	1.32	956.81	1186	24.7858%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4682337.252
5573540	5/10/2012	684	1.32	954.17	1189	24.8485%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4669429.072
5573540	6/25/2011	684	1.32	954.17	1189	24.8485%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4669429.072
5573540	5/23/2008	683	1.32	952.85	1191	24.8903%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4662974.982
5573540	6/29/2000	683	1.32	952.85	1191	24.8903%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4662974.982
5573540	5/4/1990	681	1.32	950.22	1193	24.9321%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4650066.802
5573540	5/29/2010	681	1.32	950.22	1193	24.9321%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4650066.802
5573540	7/7/2009	681	1.32	950.22	1193	24.9321%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4650066.802
5573540	5/6/2006	679	1.32	947.58	1196	24.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4637158.622

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/22/2014	679	1.32	947.58	1196	24.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4637158.622
5573540	6/26/2011	677	1.32	944.94	1198	25.0366%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4624250.442
5573540	6/17/2013	677	1.32	944.94	1198	25.0366%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4624250.442
5573540	6/2/1994	675	1.32	942.30	1200	25.0784%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4611342.262
5573540	5/27/1997	674	1.32	940.98	1201	25.0993%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4604888.172
5573540	6/3/1998	674	1.32	940.98	1201	25.0993%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4604888.172
5573540	5/7/2006	673	1.32	939.66	1203	25.1411%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4598434.082
5573540	6/14/1994	673	1.32	939.66	1203	25.1411%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4598434.082
5573540	6/14/2000	670	1.32	935.71	1205	25.1829%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4579071.812
5573540	7/12/1990	670	1.32	935.71	1205	25.1829%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4579071.812
5573540	5/4/1995	669	1.32	934.39	1207	25.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4572617.722
5573540	5/9/2012	669	1.32	934.39	1207	25.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4572617.722
5573540	7/4/2008	669	1.32	934.39	1207	25.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4572617.722
5573540	6/9/2009	668	1.32	933.07	1210	25.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4566163.632
5573540	7/17/2004	668	1.32	933.07	1210	25.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4566163.632
5573540	5/22/2011	667	1.32	931.75	1212	25.3292%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4559709.542
5573540	6/2/1998	667	1.32	931.75	1212	25.3292%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4559709.542
5573540	7/12/2014	667	1.32	931.75	1212	25.3292%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4559709.542
5573540	5/1/2010	665	1.32	929.11	1215	25.3918%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4546801.362
5573540	6/20/2013	665	1.32	929.11	1215	25.3918%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4546801.362
5573540	7/9/1990	665	1.32	929.11	1215	25.3918%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4546801.362
5573540	5/16/2006	664	1.32	927.80	1218	25.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4540347.272
5573540	10/27/2004	664	1.32	927.80	1218	25.4545%	Fecal_coliform	950	cfu/100mL	200	283.2	21566649.54	4540347.272
5573540	5/19/1999	662	1.32	925.16	1220	25.4963%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4527439.092
5573540	7/23/1998	662	1.32	925.16	1220	25.4963%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4527439.092
5573540	7/27/2008	659	1.32	921.20	1222	25.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4508076.822
5573540	6/20/1999	658	1.32	919.88	1223	25.5590%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4501622.732
5573540	6/19/2013	658	1.32	919.88	1223	25.5590%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4501622.732
5573540	7/14/1990	658	1.32	919.88	1223	25.5590%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4501622.732
5573540	5/22/1994	655	1.32	915.93	1226	25.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4482260.462
5573540	6/23/1996	654	1.32	914.61	1227	25.6426%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4475806.372
5573540	9/19/2014	654	1.32	914.61	1227	25.6426%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4475806.372
5573540	5/14/1994	653	1.32	913.29	1229	25.6844%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4469352.282
5573540	6/29/1995	653	1.32	913.29	1229	25.6844%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4469352.282
5573540	5/11/2012	652	1.32	911.97	1231	25.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4462898.192
5573540	6/3/2006	652	1.32	911.97	1231	25.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4462898.192
5573540	5/13/1993	651	1.32	910.65	1233	25.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4456444.102
5573540	5/20/1999	651	1.32	910.65	1233	25.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4456444.102
5573540	6/21/2008	651	1.32	910.65	1233	25.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4456444.102
5573540	6/1/1991	650	1.32	909.33	1236	25.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4449990.012
5573540	6/23/2002	650	1.32	909.33	1236	25.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4449990.012
5573540	7/9/2009	649	1.32	908.01	1238	25.8725%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4443535.922
5573540	10/25/2006	649	1.32	908.01	1238	25.8725%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4443535.922
5573540	7/12/2009	648	1.32	906.69	1240	25.9143%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4437081.832
5573540	6/24/1996	647	1.32	905.37	1241	25.9352%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4430627.742
5573540	10/13/2014	647	1.32	905.37	1241	25.9352%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4430627.742

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/29/2008	646	1.32	904.06	1243	25.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4424173.652
5573540	10/19/2009	644	1.32	901.42	1244	25.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4411265.472
5573540	6/2/2009	642	1.32	898.78	1245	26.0188%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4398357.292
5573540	6/16/2013	642	1.32	898.78	1245	26.0188%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4398357.292
5573540	5/5/2003	640	1.32	896.14	1247	26.0606%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4385449.112
5573540	5/8/1997	638	1.32	893.50	1248	26.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4372540.932
5573540	6/16/2000	638	1.32	893.50	1248	26.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4372540.932
5573540	6/10/2009	638	1.32	893.50	1248	26.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4372540.932
5573540	6/15/2009	638	1.32	893.50	1248	26.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4372540.932
5573540	9/1/2009	638	1.32	893.50	1248	26.0815%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4372540.932
5573540	9/4/2010	637	1.32	892.19	1253	26.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4366086.842
5573540	9/20/2014	637	1.32	892.19	1253	26.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4366086.842
5573540	5/8/2006	636	1.32	890.87	1255	26.2278%	Fecal_coliform	520	cfu/100mL	200	283.2	11335045.16	4359632.752
5573540	7/3/2010	635	1.32	889.55	1256	26.2487%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4353178.662
5573540	10/10/2014	635	1.32	889.55	1256	26.2487%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4353178.662
5573540	8/21/1993	634	1.32	888.23	1258	26.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4346724.572
5573540	6/2/1991	632	1.32	885.59	1259	26.3114%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4333816.392
5573540	6/11/2013	632	1.32	885.59	1259	26.3114%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4333816.392
5573540	7/5/2013	632	1.32	885.59	1259	26.3114%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4333816.392
5573540	6/30/2008	630	1.32	882.95	1262	26.3741%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4320908.212
5573540	7/14/1998	630	1.32	882.95	1262	26.3741%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4320908.212
5573540	5/9/1990	629	1.32	881.64	1264	26.4159%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4314454.122
5573540	7/21/2010	628	1.32	880.32	1265	26.4368%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4308000.032
5573540	6/6/1998	627	1.32	879.00	1266	26.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4301545.942
5573540	7/21/2008	627	1.32	879.00	1266	26.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4301545.942
5573540	5/26/2013	626	1.32	877.68	1268	26.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4295091.852
5573540	7/3/2011	626	1.32	877.68	1268	26.4995%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4295091.852
5573540	7/2/2007	625	1.32	876.36	1270	26.5413%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4288637.762
5573540	6/17/2009	624	1.32	875.04	1271	26.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4282183.672
5573540	10/12/2009	624	1.32	875.04	1271	26.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4282183.672
5573540	6/29/2009	621	1.32	871.08	1273	26.6040%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4262821.402
5573540	7/4/2009	619	1.32	868.45	1274	26.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4249913.222
5573540	9/13/2008	619	1.32	868.45	1274	26.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4249913.222
5573540	5/4/2007	618	1.32	867.13	1276	26.6667%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4243459.133
5573540	10/24/2001	617	1.32	865.81	1277	26.6876%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4237005.043
5573540	6/3/2000	616	1.32	864.49	1278	26.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4230550.953
5573540	9/24/2014	616	1.32	864.49	1278	26.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4230550.953
5573540	5/20/2013	615	1.32	863.17	1280	26.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4224096.863
5573540	6/18/2013	615	1.32	863.17	1280	26.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4224096.863
5573540	10/7/1993	614	1.32	861.85	1282	26.7921%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4217642.773
5573540	5/19/2003	613	1.32	860.53	1283	26.8130%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4211188.683
5573540	8/30/2006	613	1.32	860.53	1283	26.8130%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4211188.683
5573540	5/19/1998	610	1.32	856.58	1285	26.8548%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4191826.413
5573540	5/20/2003	610	1.32	856.58	1285	26.8548%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4191826.413
5573540	5/7/1999	608	1.32	853.94	1287	26.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4178918.233
5573540	5/10/1999	608	1.32	853.94	1287	26.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4178918.233

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/27/2004	607	1.32	852.62	1289	26.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4172464.143
5573540	6/27/1997	605	1.32	849.98	1290	26.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4159555.963
5573540	9/21/2014	605	1.32	849.98	1290	26.9592%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4159555.963
5573540	7/28/1990	604	1.32	848.66	1292	27.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4153101.873
5573540	10/9/2008	603	1.32	847.34	1293	27.0219%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4146647.783
5573540	6/13/2013	602	1.32	846.03	1294	27.0428%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4140193.693
5573540	6/7/2015	601	1.32	844.71	1295	27.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4133739.603
5573540	6/9/1994	600	1.32	843.39	1296	27.0846%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4127285.513
5573540	6/26/2004	599	1.32	842.07	1297	27.1055%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4120831.423
5573540	6/28/2004	599	1.32	842.07	1297	27.1055%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4120831.423
5573540	9/25/2014	599	1.32	842.07	1297	27.1055%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4120831.423
5573540	10/24/2008	599	1.32	842.07	1297	27.1055%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4120831.423
5573540	5/8/2010	598	1.32	840.75	1301	27.1891%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4114377.333
5573540	7/25/2008	598	1.32	840.75	1301	27.1891%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4114377.333
5573540	5/18/1994	596	1.32	838.11	1303	27.2309%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4101469.153
5573540	5/30/2014	596	1.32	838.11	1303	27.2309%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4101469.153
5573540	6/16/2009	596	1.32	838.11	1303	27.2309%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4101469.153
5573540	5/2/1991	595	1.32	836.79	1306	27.2936%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4095015.063
5573540	6/21/1997	595	1.32	836.79	1306	27.2936%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4095015.063
5573540	10/17/2009	594	1.32	835.48	1308	27.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4088560.973
5573540	7/13/1998	593	1.32	834.16	1309	27.3563%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4082106.883
5573540	8/5/1998	592	1.32	832.84	1310	27.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4075652.793
5573540	5/1/2004	590	1.32	830.20	1311	27.3981%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4062744.613
5573540	10/22/2004	590	1.32	830.20	1311	27.3981%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4062744.613
5573540	6/23/1999	589	1.32	828.88	1313	27.4399%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4056290.523
5573540	6/26/2007	589	1.32	828.88	1313	27.4399%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4056290.523
5573540	8/3/1993	589	1.32	828.88	1313	27.4399%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4056290.523
5573540	5/7/2008	588	1.32	827.56	1316	27.5026%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4049836.433
5573540	7/13/1990	588	1.32	827.56	1316	27.5026%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4049836.433
5573540	5/3/1999	587	1.32	826.24	1318	27.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4043382.343
5573540	5/23/1999	587	1.32	826.24	1318	27.5444%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4043382.343
5573540	7/9/2000	585	1.32	823.61	1320	27.5862%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4030474.163
5573540	6/25/1996	584	1.32	822.29	1321	27.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4024020.073
5573540	7/15/2013	584	1.32	822.29	1321	27.6071%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4024020.073
5573540	5/2/2014	583	1.32	820.97	1323	27.6489%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4017565.983
5573540	6/3/2002	583	1.32	820.97	1323	27.6489%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4017565.983
5573540	7/13/2009	583	1.32	820.97	1323	27.6489%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4017565.983
5573540	5/11/1999	581	1.32	818.33	1326	27.7116%	Fecal_coliform	30	cfu/100mL	200	283.2	600698.6704	4004657.803
5573540	5/7/2010	581	1.32	818.33	1326	27.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4004657.803
5573540	8/12/1995	581	1.32	818.33	1326	27.7116%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	4004657.803
5573540	6/7/1995	580	1.32	817.01	1329	27.7743%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3998203.713
5573540	6/25/1994	579	1.32	815.69	1330	27.7952%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3991749.623
5573540	6/14/2001	578	1.32	814.37	1331	27.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3985295.533
5573540	6/30/2014	578	1.32	814.37	1331	27.8161%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3985295.533
5573540	6/6/2000	577	1.32	813.05	1333	27.8579%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3978841.443
5573540	5/3/2014	575	1.32	810.42	1334	27.8788%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3965933.263

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/15/1990	575	1.32	810.42	1334	27.8788%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3965933.263
5573540	9/5/2010	575	1.32	810.42	1334	27.8788%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3965933.263
5573540	10/19/2006	575	1.32	810.42	1334	27.8788%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3965933.263
5573540	8/7/1995	574	1.32	809.10	1338	27.9624%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3959479.173
5573540	7/4/2011	573	1.32	807.78	1339	27.9833%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3953025.083
5573540	5/14/1993	572	1.32	806.46	1340	28.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3946570.993
5573540	5/20/2006	572	1.32	806.46	1340	28.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3946570.993
5573540	5/3/2010	571	1.32	805.14	1342	28.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3940116.903
5573540	6/18/2014	571	1.32	805.14	1342	28.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3940116.903
5573540	8/9/1993	571	1.32	805.14	1342	28.0460%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3940116.903
5573540	5/14/2006	570	1.32	803.82	1345	28.1087%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3933662.813
5573540	6/20/1997	570	1.32	803.82	1345	28.1087%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3933662.813
5573540	5/19/2006	569	1.32	802.50	1347	28.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3927208.723
5573540	6/10/1995	569	1.32	802.50	1347	28.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3927208.723
5573540	10/24/2006	569	1.32	802.50	1347	28.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3927208.723
5573540	5/24/2011	568	1.32	801.18	1350	28.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3920754.633
5573540	7/1/1999	568	1.32	801.18	1350	28.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3920754.633
5573540	5/31/1991	567	1.32	799.87	1352	28.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3914300.543
5573540	7/18/2004	567	1.32	799.87	1352	28.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3914300.543
5573540	6/18/2000	566	1.32	798.55	1354	28.2968%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3907846.453
5573540	5/15/2000	565	1.32	797.23	1355	28.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3901392.363
5573540	7/2/1999	565	1.32	797.23	1355	28.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3901392.363
5573540	5/17/2013	564	1.32	795.91	1357	28.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3894938.273
5573540	6/22/1991	562	1.32	793.27	1358	28.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3882030.093
5573540	5/30/1991	561	1.32	791.95	1359	28.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3875576.003
5573540	5/9/2010	561	1.32	791.95	1359	28.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3875576.003
5573540	5/18/2006	560	1.32	790.63	1361	28.4431%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3869121.913
5573540	5/11/1990	559	1.32	789.32	1362	28.4639%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3862667.823
5573540	5/17/2006	559	1.32	789.32	1362	28.4639%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3862667.823
5573540	6/8/1992	559	1.32	789.32	1362	28.4639%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3862667.823
5573540	5/12/2012	558	1.32	788.00	1365	28.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3856213.733
5573540	7/4/2010	558	1.32	788.00	1365	28.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3856213.733
5573540	7/7/2015	558	1.32	788.00	1365	28.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3856213.733
5573540	9/21/2015	558	1.32	788.00	1365	28.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3856213.733
5573540	6/26/2002	557	1.32	786.68	1369	28.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3849759.643
5573540	9/1/2006	557	1.32	786.68	1369	28.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3849759.643
5573540	6/29/2004	556	1.32	785.36	1371	28.6520%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3843305.553
5573540	6/14/2013	556	1.32	785.36	1371	28.6520%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3843305.553
5573540	5/10/2011	555	1.32	784.04	1373	28.6938%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3836851.463
5573540	6/24/1999	555	1.32	784.04	1373	28.6938%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3836851.463
5573540	10/8/2008	555	1.32	784.04	1373	28.6938%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3836851.463
5573540	10/24/1990	552	1.32	780.08	1376	28.7565%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3817489.193
5573540	9/23/2014	551	1.32	778.76	1377	28.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3811035.103
5573540	6/10/2002	550	1.32	777.45	1378	28.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3804581.013
5573540	7/5/2008	549	1.32	776.13	1379	28.8192%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3798126.923
5573540	5/21/2006	548	1.32	774.81	1380	28.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3791672.833

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/30/2008	548	1.32	774.81	1380	28.8401%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3791672.833
5573540	6/4/2006	547	1.32	773.49	1382	28.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3785218.743
5573540	7/28/2010	547	1.32	773.49	1382	28.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3785218.743
5573540	9/2/2004	546	1.32	772.17	1384	28.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3778764.653
5573540	7/3/2000	543	1.32	768.21	1385	28.9446%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3759402.383
5573540	7/4/2000	543	1.32	768.21	1385	28.9446%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3759402.383
5573540	7/19/2003	542	1.32	766.89	1387	28.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3752948.293
5573540	8/24/2014	542	1.32	766.89	1387	28.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3752948.293
5573540	10/25/2004	542	1.32	766.89	1387	28.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3752948.293
5573540	10/31/2008	542	1.32	766.89	1387	28.9864%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3752948.293
5573540	5/9/1999	540	1.32	764.26	1391	29.0700%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3740040.113
5573540	9/22/2014	540	1.32	764.26	1391	29.0700%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3740040.113
5573540	5/9/2006	538	1.32	761.62	1393	29.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3727131.933
5573540	8/18/2006	538	1.32	761.62	1393	29.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3727131.933
5573540	5/6/2007	537	1.32	760.30	1395	29.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3720677.843
5573540	5/24/2008	537	1.32	760.30	1395	29.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3720677.843
5573540	6/15/1993	536	1.32	758.98	1397	29.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3714223.753
5573540	6/22/1995	535	1.32	757.66	1398	29.2163%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3707769.663
5573540	5/24/1999	534	1.32	756.34	1399	29.2372%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3701315.573
5573540	5/4/2008	532	1.32	753.71	1400	29.2581%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3688407.393
5573540	7/22/2014	531	1.32	752.39	1401	29.2790%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3681953.303
5573540	8/6/1992	530	1.32	751.07	1402	29.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3675499.213
5573540	6/7/2000	529	1.32	749.75	1403	29.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3669045.123
5573540	6/28/2002	529	1.32	749.75	1403	29.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3669045.123
5573540	5/29/1991	528	1.32	748.43	1405	29.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3662591.033
5573540	6/26/1997	528	1.32	748.43	1405	29.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3662591.033
5573540	6/23/2013	528	1.32	748.43	1405	29.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3662591.033
5573540	5/8/1999	527	1.32	747.11	1408	29.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3656136.943
5573540	7/20/2003	525	1.32	744.47	1409	29.4462%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3643228.763
5573540	5/26/1999	524	1.32	743.16	1410	29.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3636774.673
5573540	6/16/2005	524	1.32	743.16	1410	29.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3636774.673
5573540	6/28/2007	521	1.32	739.20	1412	29.5089%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3617412.403
5573540	5/12/2005	520	1.32	737.88	1413	29.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3610958.313
5573540	7/26/2008	520	1.32	737.88	1413	29.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3610958.313
5573540	8/4/1993	520	1.32	737.88	1413	29.5298%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3610958.313
5573540	5/22/2006	518	1.32	735.24	1416	29.5925%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3598050.133
5573540	5/11/2006	517	1.32	733.92	1417	29.6134%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3591596.043
5573540	7/2/2000	517	1.32	733.92	1417	29.6134%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3591596.043
5573540	7/1/2000	516	1.32	732.60	1419	29.6552%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3585141.953
5573540	6/30/1996	515	1.32	731.29	1420	29.6761%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3578687.863
5573540	7/18/2003	515	1.32	731.29	1420	29.6761%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3578687.863
5573540	5/5/1990	514	1.32	729.97	1422	29.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3572233.773
5573540	6/19/1993	514	1.32	729.97	1422	29.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3572233.773
5573540	5/21/1999	511	1.32	726.01	1424	29.7597%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3552871.503
5573540	5/13/2006	508	1.32	722.05	1425	29.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3533509.233
5573540	5/19/2013	508	1.32	722.05	1425	29.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3533509.233

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/22/1999	508	1.32	722.05	1425	29.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3533509.233
5573540	9/11/2014	508	1.32	722.05	1425	29.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3533509.233
5573540	5/14/2000	505	1.32	718.10	1429	29.8642%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3514146.963
5573540	6/5/2006	505	1.32	718.10	1429	29.8642%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3514146.963
5573540	6/20/2014	505	1.32	718.10	1429	29.8642%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3514146.963
5573540	10/28/2001	505	1.32	718.10	1429	29.8642%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3514146.963
5573540	5/27/1994	504	1.32	716.78	1433	29.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3507692.873
5573540	6/16/1993	503	1.32	715.46	1434	29.9687%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3501238.783
5573540	6/12/2013	502	1.32	714.14	1435	29.9896%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3494784.693
5573540	9/3/1993	502	1.32	714.14	1435	29.9896%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3494784.693
5573540	10/6/2000	502	1.32	714.14	1435	29.9896%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3494784.693
5573540	8/2/1993	501	1.32	712.82	1438	30.0522%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3488330.603
5573540	5/8/1992	500	1.32	711.50	1439	30.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3481876.513
5573540	5/10/1992	500	1.32	711.50	1439	30.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3481876.513
5573540	6/5/2002	500	1.32	711.50	1439	30.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3481876.513
5573540	7/5/2010	500	1.32	711.50	1439	30.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3481876.513
5573540	8/6/1998	497	1.32	707.55	1443	30.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3462514.243
5573540	9/1/2003	495	1.32	704.91	1444	30.1776%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3449606.063
5573540	5/25/2013	494	1.32	703.59	1445	30.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3443151.973
5573540	6/30/2000	494	1.32	703.59	1445	30.1985%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3443151.973
5573540	5/22/2003	493	1.32	702.27	1447	30.2403%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3436697.883
5573540	5/1/2008	491	1.32	699.63	1448	30.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3423789.703
5573540	7/17/2009	490	1.32	698.31	1449	30.2821%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3417335.613
5573540	10/23/2014	490	1.32	698.31	1449	30.2821%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3417335.613
5573540	7/1/1995	489	1.32	696.99	1451	30.3239%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3410881.523
5573540	7/12/1998	489	1.32	696.99	1451	30.3239%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3410881.523
5573540	6/21/2014	488	1.32	695.68	1453	30.3657%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3404427.433
5573540	8/26/1993	487	1.32	694.36	1454	30.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3397973.343
5573540	8/13/1995	487	1.32	694.36	1454	30.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3397973.343
5573540	6/29/2002	486	1.32	693.04	1456	30.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3391519.253
5573540	7/2/1995	486	1.32	693.04	1456	30.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3391519.253
5573540	7/3/1999	486	1.32	693.04	1456	30.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3391519.253
5573540	10/11/2014	486	1.32	693.04	1456	30.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3391519.253
5573540	5/2/2004	485	1.32	691.72	1460	30.5120%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3385065.163
5573540	7/28/2008	485	1.32	691.72	1460	30.5120%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3385065.163
5573540	6/28/1997	484	1.32	690.40	1462	30.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3378611.073
5573540	7/10/2014	484	1.32	690.40	1462	30.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3378611.073
5573540	9/13/1993	484	1.32	690.40	1462	30.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3378611.073
5573540	5/18/1999	483	1.32	689.08	1465	30.6165%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3372156.983
5573540	7/20/1992	483	1.32	689.08	1465	30.6165%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3372156.983
5573540	10/10/2008	482	1.32	687.76	1467	30.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3365702.893
5573540	7/2/2008	481	1.32	686.44	1468	30.6792%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3359248.803
5573540	7/23/2013	481	1.32	686.44	1468	30.6792%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3359248.803
5573540	5/19/1993	480	1.32	685.13	1470	30.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3352794.713
5573540	6/17/2000	480	1.32	685.13	1470	30.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3352794.713
5573540	7/4/1999	480	1.32	685.13	1470	30.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3352794.713

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/24/2003	479	1.32	683.81	1473	30.7837%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3346340.623
5573540	10/11/2009	479	1.32	683.81	1473	30.7837%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3346340.623
5573540	5/25/1993	478	1.32	682.49	1475	30.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3339886.533
5573540	5/4/1999	477	1.32	681.17	1476	30.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3333432.443
5573540	6/27/2002	477	1.32	681.17	1476	30.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3333432.443
5573540	10/12/2014	477	1.32	681.17	1476	30.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3333432.443
5573540	6/5/2000	476	1.32	679.85	1479	30.9091%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3326978.353
5573540	5/25/1999	475	1.32	678.53	1480	30.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3320524.263
5573540	6/24/2008	475	1.32	678.53	1480	30.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3320524.263
5573540	7/5/1999	475	1.32	678.53	1480	30.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3320524.263
5573540	7/10/2000	475	1.32	678.53	1480	30.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3320524.263
5573540	7/3/1995	474	1.32	677.21	1484	31.0136%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3314070.173
5573540	8/7/2003	474	1.32	677.21	1484	31.0136%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3314070.173
5573540	6/15/2013	473	1.32	675.89	1486	31.0554%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3307616.083
5573540	8/11/1995	473	1.32	675.89	1486	31.0554%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3307616.083
5573540	5/12/1999	472	1.32	674.57	1488	31.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3301161.993
5573540	6/21/2003	472	1.32	674.57	1488	31.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3301161.993
5573540	9/22/2015	472	1.32	674.57	1488	31.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3301161.993
5573540	10/28/2014	472	1.32	674.57	1488	31.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3301161.993
5573540	8/29/1992	471	1.32	673.26	1492	31.1808%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3294707.903
5573540	10/10/2009	471	1.32	673.26	1492	31.1808%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3294707.903
5573540	7/8/2009	470	1.32	671.94	1494	31.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3288253.813
5573540	9/26/2014	470	1.32	671.94	1494	31.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3288253.813
5573540	5/16/1993	469	1.32	670.62	1496	31.2644%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3281799.723
5573540	7/8/2004	469	1.32	670.62	1496	31.2644%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3281799.723
5573540	6/2/1993	468	1.32	669.30	1498	31.3062%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3275345.633
5573540	6/19/1997	468	1.32	669.30	1498	31.3062%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3275345.633
5573540	5/18/2013	467	1.32	667.98	1500	31.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3268891.543
5573540	5/4/2014	467	1.32	667.98	1500	31.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3268891.543
5573540	6/30/1995	467	1.32	667.98	1500	31.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3268891.543
5573540	5/10/2006	466	1.32	666.66	1503	31.4107%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3262437.453
5573540	7/1/1996	465	1.32	665.34	1504	31.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3255983.363
5573540	10/26/2014	464	1.32	664.02	1505	31.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3249529.273
5573540	6/17/2005	463	1.32	662.70	1506	31.4734%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3243075.183
5573540	7/3/2009	463	1.32	662.70	1506	31.4734%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3243075.183
5573540	7/6/2015	463	1.32	662.70	1506	31.4734%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3243075.183
5573540	10/25/2014	463	1.32	662.70	1506	31.4734%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3243075.183
5573540	10/29/2014	463	1.32	662.70	1506	31.4734%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3243075.183
5573540	5/28/1994	462	1.32	661.39	1511	31.5778%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3236621.093
5573540	6/26/2008	461	1.32	660.07	1512	31.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3230167.003
5573540	7/15/1998	461	1.32	660.07	1512	31.5987%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3230167.003
5573540	5/3/1991	460	1.32	658.75	1514	31.6405%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3223712.913
5573540	5/5/2007	459	1.32	657.43	1515	31.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3217258.823
5573540	8/15/1999	459	1.32	657.43	1515	31.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3217258.823
5573540	5/12/2006	458	1.32	656.11	1517	31.7032%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3210804.733
5573540	6/21/1999	458	1.32	656.11	1517	31.7032%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3210804.733

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/26/2006	458	1.32	656.11	1517	31.7032%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3210804.733
5573540	6/30/2002	455	1.32	652.15	1520	31.7659%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3191442.463
5573540	10/15/2009	455	1.32	652.15	1520	31.7659%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3191442.463
5573540	6/27/2003	454	1.32	650.83	1522	31.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3184988.373
5573540	5/22/1999	453	1.32	649.52	1523	31.8286%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3178534.284
5573540	7/4/1995	453	1.32	649.52	1523	31.8286%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3178534.284
5573540	7/3/2004	453	1.32	649.52	1523	31.8286%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3178534.284
5573540	8/30/1993	453	1.32	649.52	1523	31.8286%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3178534.284
5573540	7/11/2014	452	1.32	648.20	1527	31.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3172080.194
5573540	5/23/2006	451	1.32	646.88	1528	31.9331%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3165626.104
5573540	10/26/2004	450	1.32	645.56	1529	31.9540%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3159172.014
5573540	7/16/2006	449	1.32	644.24	1530	31.9749%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3152717.924
5573540	5/20/2015	448	1.32	642.92	1531	31.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3146263.834
5573540	7/2/2009	448	1.32	642.92	1531	31.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3146263.834
5573540	6/15/2001	447	1.32	641.60	1533	32.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3139809.744
5573540	5/27/1999	445	1.32	638.97	1534	32.0585%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3126901.564
5573540	5/13/2012	445	1.32	638.97	1534	32.0585%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3126901.564
5573540	8/8/1992	444	1.32	637.65	1536	32.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3120447.474
5573540	7/3/2007	442	1.32	635.01	1537	32.1212%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3107539.294
5573540	10/30/2014	442	1.32	635.01	1537	32.1212%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3107539.294
5573540	5/10/1990	441	1.32	633.69	1539	32.1630%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3101085.204
5573540	7/18/2009	441	1.32	633.69	1539	32.1630%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3101085.204
5573540	7/7/2013	441	1.32	633.69	1539	32.1630%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3101085.204
5573540	5/3/1992	440	1.32	632.37	1542	32.2257%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3094631.114
5573540	6/22/2003	440	1.32	632.37	1542	32.2257%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3094631.114
5573540	8/5/1993	440	1.32	632.37	1542	32.2257%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3094631.114
5573540	10/24/2014	440	1.32	632.37	1542	32.2257%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3094631.114
5573540	5/29/1994	439	1.32	631.05	1546	32.3093%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3088177.024
5573540	5/29/2014	439	1.32	631.05	1546	32.3093%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3088177.024
5573540	7/12/2006	439	1.32	631.05	1546	32.3093%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3088177.024
5573540	7/7/2010	439	1.32	631.05	1546	32.3093%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3088177.024
5573540	9/2/2006	439	1.32	631.05	1546	32.3093%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3088177.024
5573540	5/31/2006	438	1.32	629.73	1551	32.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3081722.934
5573540	7/16/2009	438	1.32	629.73	1551	32.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3081722.934
5573540	10/31/2014	437	1.32	628.41	1553	32.4556%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3075268.844
5573540	6/17/1994	434	1.32	624.46	1554	32.4765%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3055906.574
5573540	6/19/2014	434	1.32	624.46	1554	32.4765%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3055906.574
5573540	5/9/2008	433	1.32	623.14	1556	32.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3049452.484
5573540	5/21/2015	433	1.32	623.14	1556	32.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3049452.484
5573540	7/8/2013	433	1.32	623.14	1556	32.5183%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3049452.484
5573540	6/16/2014	432	1.32	621.82	1559	32.5810%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3042998.394
5573540	7/6/2013	432	1.32	621.82	1559	32.5810%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3042998.394
5573540	5/23/2011	430	1.32	619.18	1561	32.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3030090.214
5573540	7/6/2010	430	1.32	619.18	1561	32.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3030090.214
5573540	7/24/2010	430	1.32	619.18	1561	32.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3030090.214
5573540	10/27/2014	430	1.32	619.18	1561	32.6228%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3030090.214

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/7/1998	429	1.32	617.86	1565	32.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3023636.124
5573540	6/1/1999	429	1.32	617.86	1565	32.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3023636.124
5573540	6/16/2001	429	1.32	617.86	1565	32.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3023636.124
5573540	6/30/2003	429	1.32	617.86	1565	32.7064%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3023636.124
5573540	10/16/2000	428	1.32	616.54	1569	32.7900%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3017182.034
5573540	6/27/2007	427	1.32	615.23	1570	32.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3010727.944
5573540	5/2/2000	426	1.32	613.91	1571	32.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3004273.854
5573540	8/12/1993	426	1.32	613.91	1571	32.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	3004273.854
5573540	9/3/2010	425	1.32	612.59	1573	32.8736%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2997819.764
5573540	5/30/1994	423	1.32	609.95	1574	32.8945%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2984911.584
5573540	5/1/2005	423	1.32	609.95	1574	32.8945%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2984911.584
5573540	5/3/2008	423	1.32	609.95	1574	32.8945%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2984911.584
5573540	9/6/2008	423	1.32	609.95	1574	32.8945%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2984911.584
5573540	10/23/1990	423	1.32	609.95	1574	32.8945%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2984911.584
5573540	9/28/2008	422	1.32	608.63	1579	32.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2978457.494
5573540	10/11/2008	422	1.32	608.63	1579	32.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2978457.494
5573540	5/2/1992	420	1.32	605.99	1581	33.0408%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2965549.314
5573540	7/9/2013	419	1.32	604.67	1582	33.0617%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2959095.224
5573540	9/27/2008	418	1.32	603.36	1583	33.0825%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2952641.134
5573540	5/12/2007	416	1.32	600.72	1584	33.1034%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2939732.954
5573540	6/17/2001	415	1.32	599.40	1585	33.1243%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2933278.864
5573540	8/9/1992	415	1.32	599.40	1585	33.1243%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2933278.864
5573540	6/23/1997	414	1.32	598.08	1587	33.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2926824.774
5573540	10/17/2006	414	1.32	598.08	1587	33.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2926824.774
5573540	5/24/2006	412	1.32	595.44	1589	33.2079%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2913916.594
5573540	6/29/1993	412	1.32	595.44	1589	33.2079%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2913916.594
5573540	9/29/2008	412	1.32	595.44	1589	33.2079%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2913916.594
5573540	5/26/2014	411	1.32	594.12	1592	33.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2907462.504
5573540	7/2/2004	411	1.32	594.12	1592	33.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2907462.504
5573540	5/4/1992	410	1.32	592.81	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2901008.414
5573540	5/5/1992	410	1.32	592.81	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2901008.414
5573540	5/29/2006	410	1.32	592.81	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2901008.414
5573540	5/19/2015	410	1.32	592.81	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2901008.414
5573540	6/8/1998	410	1.32	592.81	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2901008.414
5573540	6/30/2009	410	1.32	592.81	1594	33.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2901008.414
5573540	6/17/2014	408	1.32	590.17	1600	33.4378%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2888100.234
5573540	7/21/1992	408	1.32	590.17	1600	33.4378%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2888100.234
5573540	10/2/2014	408	1.32	590.17	1600	33.4378%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2888100.234
5573540	6/24/1994	407	1.32	588.85	1603	33.5005%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2881646.144
5573540	5/20/1993	405	1.32	586.21	1604	33.5214%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2868737.964
5573540	6/22/2014	405	1.32	586.21	1604	33.5214%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2868737.964
5573540	5/23/1994	404	1.32	584.89	1606	33.5632%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2862283.874
5573540	6/13/2000	404	1.32	584.89	1606	33.5632%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2862283.874
5573540	8/30/1992	404	1.32	584.89	1606	33.5632%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2862283.874
5573540	10/19/2001	403	1.32	583.57	1609	33.6259%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2855829.784
5573540	7/29/1990	401	1.32	580.94	1610	33.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2842921.604

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/9/2003	401	1.32	580.94	1610	33.6468%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2842921.604
5573540	5/2/2005	400	1.32	579.62	1612	33.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2836467.514
5573540	6/10/2000	400	1.32	579.62	1612	33.6886%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2836467.514
5573540	6/4/2000	398	1.32	576.98	1614	33.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2823559.334
5573540	7/4/2004	398	1.32	576.98	1614	33.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2823559.334
5573540	7/23/2014	398	1.32	576.98	1614	33.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2823559.334
5573540	7/24/2014	397	1.32	575.66	1617	33.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2817105.244
5573540	8/7/1992	397	1.32	575.66	1617	33.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2817105.244
5573540	9/7/2009	397	1.32	575.66	1617	33.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2817105.244
5573540	6/17/1993	396	1.32	574.34	1620	33.8558%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2810651.154
5573540	6/26/1994	396	1.32	574.34	1620	33.8558%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2810651.154
5573540	7/7/2004	396	1.32	574.34	1620	33.8558%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2810651.154
5573540	6/26/1996	395	1.32	573.02	1623	33.9185%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2804197.064
5573540	8/2/2006	395	1.32	573.02	1623	33.9185%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2804197.064
5573540	5/8/2004	394	1.32	571.70	1625	33.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2797742.974
5573540	5/11/2007	392	1.32	569.07	1626	33.9812%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2784834.794
5573540	6/18/1993	392	1.32	569.07	1626	33.9812%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2784834.794
5573540	10/26/1990	392	1.32	569.07	1626	33.9812%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2784834.794
5573540	10/27/2006	392	1.32	569.07	1626	33.9812%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2784834.794
5573540	6/25/2008	391	1.32	567.75	1630	34.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2778380.704
5573540	7/19/2009	391	1.32	567.75	1630	34.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2778380.704
5573540	5/6/1992	390	1.32	566.43	1632	34.1066%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2771926.614
5573540	5/30/2006	390	1.32	566.43	1632	34.1066%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2771926.614
5573540	7/1/2009	389	1.32	565.11	1634	34.1484%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2765472.524
5573540	7/16/2013	387	1.32	562.47	1635	34.1693%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2752564.344
5573540	7/20/2015	386	1.32	561.15	1636	34.1902%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2746110.254
5573540	6/8/1994	385	1.32	559.83	1637	34.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2739656.164
5573540	6/29/1997	385	1.32	559.83	1637	34.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2739656.164
5573540	6/25/2002	385	1.32	559.83	1637	34.2111%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2739656.164
5573540	5/13/2004	384	1.32	558.51	1640	34.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2733202.074
5573540	10/12/2008	384	1.32	558.51	1640	34.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2733202.074
5573540	5/30/1999	383	1.32	557.20	1642	34.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2726747.984
5573540	5/31/1999	383	1.32	557.20	1642	34.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2726747.984
5573540	5/3/2005	383	1.32	557.20	1642	34.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2726747.984
5573540	7/18/1990	383	1.32	557.20	1642	34.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2726747.984
5573540	5/24/1993	382	1.32	555.88	1646	34.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2720293.894
5573540	5/29/1999	382	1.32	555.88	1646	34.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2720293.894
5573540	6/4/2001	382	1.32	555.88	1646	34.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2720293.894
5573540	7/5/2004	381	1.32	554.56	1649	34.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2713839.804
5573540	7/14/2000	380	1.32	553.24	1650	34.4828%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2707385.714
5573540	7/9/2011	380	1.32	553.24	1650	34.4828%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2707385.714
5573540	5/9/1997	378	1.32	550.60	1652	34.5246%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2694477.534
5573540	5/14/2013	377	1.32	549.28	1653	34.5455%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2688023.444
5573540	5/28/2014	377	1.32	549.28	1653	34.5455%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2688023.444
5573540	6/23/2001	377	1.32	549.28	1653	34.5455%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2688023.444
5573540	7/14/2009	377	1.32	549.28	1653	34.5455%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2688023.444

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/24/2001	376	1.32	547.96	1657	34.6290%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2681569.354
5573540	5/10/2015	375	1.32	546.65	1658	34.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2675115.264
5573540	6/25/2001	375	1.32	546.65	1658	34.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2675115.264
5573540	7/19/2004	375	1.32	546.65	1658	34.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2675115.264
5573540	10/16/2008	375	1.32	546.65	1658	34.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2675115.264
5573540	8/29/2014	374	1.32	545.33	1662	34.7335%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2668661.174
5573540	5/15/1997	373	1.32	544.01	1663	34.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2662207.084
5573540	6/10/1994	373	1.32	544.01	1663	34.7544%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2662207.084
5573540	5/20/2000	372	1.32	542.69	1665	34.7962%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2655752.994
5573540	6/30/2004	372	1.32	542.69	1665	34.7962%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2655752.994
5573540	8/3/2006	372	1.32	542.69	1665	34.7962%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2655752.994
5573540	5/12/1997	371	1.32	541.37	1668	34.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2649298.904
5573540	6/26/2001	371	1.32	541.37	1668	34.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2649298.904
5573540	9/8/2008	370	1.32	540.05	1670	34.9007%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2642844.814
5573540	7/8/2011	369	1.32	538.73	1671	34.9216%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2636390.724
5573540	10/31/1992	369	1.32	538.73	1671	34.9216%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2636390.724
5573540	8/6/2003	368	1.32	537.41	1673	34.9634%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2629936.634
5573540	5/14/1997	367	1.32	536.09	1674	34.9843%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2623482.544
5573540	6/14/1991	367	1.32	536.09	1674	34.9843%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2623482.544
5573540	7/30/1990	367	1.32	536.09	1674	34.9843%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2623482.544
5573540	7/6/2007	367	1.32	536.09	1674	34.9843%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2623482.544
5573540	5/21/2005	366	1.32	534.78	1678	35.0679%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2617028.454
5573540	6/11/1992	366	1.32	534.78	1678	35.0679%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2617028.454
5573540	6/11/2000	366	1.32	534.78	1678	35.0679%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2617028.454
5573540	5/30/2007	365	1.32	533.46	1681	35.1306%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2610574.364
5573540	5/28/1999	363	1.32	530.82	1682	35.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2597666.184
5573540	5/9/2015	363	1.32	530.82	1682	35.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2597666.184
5573540	6/22/2001	363	1.32	530.82	1682	35.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2597666.184
5573540	7/9/2004	363	1.32	530.82	1682	35.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2597666.184
5573540	5/11/1997	362	1.32	529.50	1686	35.2351%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2591212.094
5573540	5/23/2003	362	1.32	529.50	1686	35.2351%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2591212.094
5573540	5/27/2003	362	1.32	529.50	1686	35.2351%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2591212.094
5573540	7/10/1990	362	1.32	529.50	1686	35.2351%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2591212.094
5573540	7/23/2015	361	1.32	528.18	1690	35.3187%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2584758.004
5573540	5/4/2005	360	1.32	526.86	1691	35.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2578303.914
5573540	7/3/1997	360	1.32	526.86	1691	35.3396%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2578303.914
5573540	6/3/1994	358	1.32	524.22	1693	35.3814%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2565395.734
5573540	6/9/2000	357	1.32	522.91	1694	35.4023%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2558941.644
5573540	7/16/1998	357	1.32	522.91	1694	35.4023%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2558941.644
5573540	7/25/2014	357	1.32	522.91	1694	35.4023%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2558941.644
5573540	7/23/1992	355	1.32	520.27	1697	35.4650%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2546033.464
5573540	7/30/2008	355	1.32	520.27	1697	35.4650%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2546033.464
5573540	8/31/2006	355	1.32	520.27	1697	35.4650%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2546033.464
5573540	9/27/2014	355	1.32	520.27	1697	35.4650%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2546033.464
5573540	5/6/1990	353	1.32	517.63	1701	35.5486%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2533125.284
5573540	7/15/2009	353	1.32	517.63	1701	35.5486%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2533125.284

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/18/2005	351	1.32	514.99	1703	35.5904%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2520217.104
5573540	7/17/2000	351	1.32	514.99	1703	35.5904%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2520217.104
5573540	5/7/2007	350	1.32	513.67	1705	35.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2513763.014
5573540	6/3/2003	350	1.32	513.67	1705	35.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2513763.014
5573540	7/8/1999	350	1.32	513.67	1705	35.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2513763.014
5573540	7/22/2015	350	1.32	513.67	1705	35.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2513763.014
5573540	8/22/1995	350	1.32	513.67	1705	35.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2513763.014
5573540	7/4/1996	349	1.32	512.35	1710	35.7367%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2507308.924
5573540	5/15/1993	348	1.32	511.04	1711	35.7576%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2500854.834
5573540	5/13/1997	348	1.32	511.04	1711	35.7576%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2500854.834
5573540	7/8/2010	348	1.32	511.04	1711	35.7576%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2500854.834
5573540	7/29/2014	348	1.32	511.04	1711	35.7576%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2500854.834
5573540	9/30/2008	348	1.32	511.04	1711	35.7576%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2500854.834
5573540	5/14/1992	347	1.32	509.72	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2494400.744
5573540	5/19/2000	347	1.32	509.72	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2494400.744
5573540	6/3/1991	347	1.32	509.72	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2494400.744
5573540	6/26/2003	347	1.32	509.72	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2494400.744
5573540	7/6/1997	347	1.32	509.72	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2494400.744
5573540	9/6/2003	347	1.32	509.72	1716	35.8621%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2494400.744
5573540	7/25/1996	346	1.32	508.40	1722	35.9875%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2487946.654
5573540	8/19/2014	346	1.32	508.40	1722	35.9875%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2487946.654
5573540	10/6/1993	346	1.32	508.40	1722	35.9875%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2487946.654
5573540	5/10/1997	344	1.32	505.76	1725	36.0502%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2475038.474
5573540	10/17/2000	344	1.32	505.76	1725	36.0502%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2475038.474
5573540	5/28/2001	343	1.32	504.44	1727	36.0920%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2468584.384
5573540	5/5/2015	343	1.32	504.44	1727	36.0920%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2468584.384
5573540	7/16/2000	343	1.32	504.44	1727	36.0920%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2468584.384
5573540	6/13/1991	341	1.32	501.80	1730	36.1546%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2455676.204
5573540	7/4/1994	341	1.32	501.80	1730	36.1546%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2455676.204
5573540	7/4/2007	341	1.32	501.80	1730	36.1546%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2455676.204
5573540	5/11/1992	340	1.32	500.49	1733	36.2173%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2449222.114
5573540	5/17/2007	340	1.32	500.49	1733	36.2173%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2449222.114
5573540	6/18/2001	340	1.32	500.49	1733	36.2173%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2449222.114
5573540	10/23/2006	340	1.32	500.49	1733	36.2173%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2449222.114
5573540	5/1/2000	339	1.32	499.17	1737	36.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2442768.024
5573540	6/29/1996	339	1.32	499.17	1737	36.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2442768.024
5573540	5/5/2005	338	1.32	497.85	1739	36.3427%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2436313.934
5573540	10/29/1990	338	1.32	497.85	1739	36.3427%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2436313.934
5573540	5/7/2004	337	1.32	496.53	1741	36.3845%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2429859.844
5573540	8/31/1993	337	1.32	496.53	1741	36.3845%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2429859.844
5573540	6/10/1992	336	1.32	495.21	1743	36.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2423405.754
5573540	6/12/2005	336	1.32	495.21	1743	36.4263%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2423405.754
5573540	9/28/2014	335	1.32	493.89	1745	36.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2416951.664
5573540	5/16/1997	334	1.32	492.57	1746	36.4890%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2410497.574
5573540	6/8/2000	334	1.32	492.57	1746	36.4890%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2410497.574
5573540	10/29/2006	334	1.32	492.57	1746	36.4890%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2410497.574

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/15/1992	333	1.32	491.25	1749	36.5517%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2404043.484
5573540	7/25/2003	331	1.32	488.62	1750	36.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2391135.304
5573540	9/7/2003	331	1.32	488.62	1750	36.5726%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2391135.304
5573540	5/13/2007	330	1.32	487.30	1752	36.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2384681.214
5573540	7/5/2007	330	1.32	487.30	1752	36.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2384681.214
5573540	7/26/2014	330	1.32	487.30	1752	36.6144%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2384681.214
5573540	5/16/2007	329	1.32	485.98	1755	36.6771%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2378227.124
5573540	5/10/2008	329	1.32	485.98	1755	36.6771%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2378227.124
5573540	5/25/2006	328	1.32	484.66	1757	36.7189%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2371773.034
5573540	6/28/1996	328	1.32	484.66	1757	36.7189%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2371773.034
5573540	7/5/2011	328	1.32	484.66	1757	36.7189%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2371773.034
5573540	5/29/2007	327	1.32	483.34	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2365318.944
5573540	5/22/2015	327	1.32	483.34	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2365318.944
5573540	6/24/1997	327	1.32	483.34	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2365318.944
5573540	6/2/2003	327	1.32	483.34	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2365318.944
5573540	7/24/2015	327	1.32	483.34	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2365318.944
5573540	10/28/2006	327	1.32	483.34	1760	36.7816%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2365318.944
5573540	5/22/2005	326	1.32	482.02	1766	36.9070%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2358864.854
5573540	5/9/2004	325	1.32	480.70	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2352410.764
5573540	5/4/2010	325	1.32	480.70	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2352410.764
5573540	6/10/2006	325	1.32	480.70	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2352410.764
5573540	7/5/1997	325	1.32	480.70	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2352410.764
5573540	7/15/2000	325	1.32	480.70	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2352410.764
5573540	7/28/2014	325	1.32	480.70	1767	36.9279%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2352410.764
5573540	5/3/2004	324	1.32	479.38	1773	37.0533%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2345956.674
5573540	5/2/2008	324	1.32	479.38	1773	37.0533%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2345956.674
5573540	5/27/2000	323	1.32	478.06	1775	37.0951%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2339502.584
5573540	7/5/1996	323	1.32	478.06	1775	37.0951%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2339502.584
5573540	8/7/1998	323	1.32	478.06	1775	37.0951%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2339502.584
5573540	8/2/2008	323	1.32	478.06	1775	37.0951%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2339502.584
5573540	5/31/2007	322	1.32	476.75	1779	37.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2333048.494
5573540	5/1/2014	322	1.32	476.75	1779	37.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2333048.494
5573540	7/3/1992	322	1.32	476.75	1779	37.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2333048.494
5573540	6/4/2002	319	1.32	472.79	1782	37.2414%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2313686.224
5573540	7/21/1990	319	1.32	472.79	1782	37.2414%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2313686.224
5573540	10/30/1993	319	1.32	472.79	1782	37.2414%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2313686.224
5573540	8/8/2003	318	1.32	471.47	1785	37.3041%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2307232.134
5573540	6/6/2006	317	1.32	470.15	1786	37.3250%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2300778.044
5573540	7/17/2006	316	1.32	468.83	1787	37.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2294323.954
5573540	10/22/2009	316	1.32	468.83	1787	37.3459%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2294323.954
5573540	6/9/2006	315	1.32	467.51	1789	37.3877%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2287869.864
5573540	5/22/1992	314	1.32	466.19	1790	37.4086%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2281415.774
5573540	10/25/1990	314	1.32	466.19	1790	37.4086%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2281415.774
5573540	8/1/2008	313	1.32	464.88	1792	37.4504%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2274961.684
5573540	5/23/2005	312	1.32	463.56	1793	37.4713%	Fecal_coliform	160	cfu/100mL	200	283.2	1814806.075	2268507.594
5573540	7/27/2014	312	1.32	463.56	1793	37.4713%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2268507.594

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/17/1990	311	1.32	462.24	1795	37.5131%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2262053.504
5573540	7/31/2008	311	1.32	462.24	1795	37.5131%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2262053.504
5573540	7/20/2009	311	1.32	462.24	1795	37.5131%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2262053.504
5573540	9/29/2014	311	1.32	462.24	1795	37.5131%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2262053.504
5573540	10/28/1990	311	1.32	462.24	1795	37.5131%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2262053.504
5573540	5/7/1995	310	1.32	460.92	1800	37.6176%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2255599.414
5573540	7/4/1997	310	1.32	460.92	1800	37.6176%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2255599.414
5573540	5/6/2015	309	1.32	459.60	1802	37.6594%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2249145.324
5573540	6/29/2008	309	1.32	459.60	1802	37.6594%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2249145.324
5573540	7/7/1997	309	1.32	459.60	1802	37.6594%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2249145.324
5573540	5/23/2015	308	1.32	458.28	1805	37.7220%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2242691.234
5573540	8/3/2008	307	1.32	456.96	1806	37.7429%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2236237.144
5573540	10/30/1992	307	1.32	456.96	1806	37.7429%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2236237.144
5573540	7/17/1998	306	1.32	455.64	1808	37.7847%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2229783.054
5573540	5/8/1990	304	1.32	453.01	1809	37.8056%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2216874.874
5573540	5/23/1992	304	1.32	453.01	1809	37.8056%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2216874.874
5573540	5/16/2000	304	1.32	453.01	1809	37.8056%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2216874.874
5573540	6/19/1994	304	1.32	453.01	1809	37.8056%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2216874.874
5573540	6/24/2002	304	1.32	453.01	1809	37.8056%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2216874.874
5573540	6/11/2006	302	1.32	450.37	1814	37.9101%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2203966.694
5573540	7/8/1990	302	1.32	450.37	1814	37.9101%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2203966.694
5573540	7/10/2011	301	1.32	449.05	1816	37.9519%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2197512.604
5573540	5/11/2004	300	1.32	447.73	1817	37.9728%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2191058.514
5573540	7/7/2007	300	1.32	447.73	1817	37.9728%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2191058.514
5573540	6/5/1991	299	1.32	446.41	1819	38.0146%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2184604.424
5573540	5/28/2003	298	1.32	445.09	1820	38.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2178150.334
5573540	5/11/2005	298	1.32	445.09	1820	38.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2178150.334
5573540	9/2/2014	298	1.32	445.09	1820	38.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2178150.334
5573540	9/30/2014	298	1.32	445.09	1820	38.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2178150.334
5573540	6/27/2008	297	1.32	443.77	1824	38.1191%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2171696.244
5573540	10/9/2009	297	1.32	443.77	1824	38.1191%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2171696.244
5573540	5/13/2005	296	1.32	442.46	1826	38.1609%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2165242.154
5573540	7/29/2010	296	1.32	442.46	1826	38.1609%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2165242.154
5573540	9/8/2009	296	1.32	442.46	1826	38.1609%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2165242.154
5573540	6/23/2014	295	1.32	441.14	1829	38.2236%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2158788.064
5573540	8/10/1995	294	1.32	439.82	1830	38.2445%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2152333.974
5573540	5/2/1995	293	1.32	438.50	1831	38.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2145879.884
5573540	5/13/2000	293	1.32	438.50	1831	38.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2145879.884
5573540	5/24/2005	293	1.32	438.50	1831	38.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2145879.884
5573540	8/15/1992	293	1.32	438.50	1831	38.2654%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2145879.884
5573540	5/10/2004	292	1.32	437.18	1835	38.3490%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2139425.794
5573540	7/16/1990	292	1.32	437.18	1835	38.3490%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2139425.794
5573540	5/1/1990	291	1.32	435.86	1837	38.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2132971.704
5573540	5/6/2012	291	1.32	435.86	1837	38.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2132971.704
5573540	7/25/2015	291	1.32	435.86	1837	38.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2132971.704
5573540	9/6/2010	291	1.32	435.86	1837	38.3908%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2132971.704

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/6/2008	290	1.32	434.54	1841	38.4744%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2126517.614
5573540	9/4/2008	290	1.32	434.54	1841	38.4744%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2126517.614
5573540	6/2/2014	289	1.32	433.22	1843	38.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2120063.524
5573540	8/8/2014	289	1.32	433.22	1843	38.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2120063.524
5573540	10/9/2003	289	1.32	433.22	1843	38.5162%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2120063.524
5573540	7/22/1998	288	1.32	431.90	1846	38.5789%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2113609.434
5573540	7/1/2004	288	1.32	431.90	1846	38.5789%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2113609.434
5573540	10/15/2008	288	1.32	431.90	1846	38.5789%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2113609.434
5573540	10/22/2008	288	1.32	431.90	1846	38.5789%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2113609.434
5573540	7/19/1998	287	1.32	430.59	1850	38.6625%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2107155.345
5573540	5/26/1992	285	1.32	427.95	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2094247.165
5573540	5/18/2007	285	1.32	427.95	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2094247.165
5573540	7/18/1999	285	1.32	427.95	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2094247.165
5573540	8/16/1998	285	1.32	427.95	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2094247.165
5573540	8/24/2002	285	1.32	427.95	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2094247.165
5573540	10/27/1990	285	1.32	427.95	1851	38.6834%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2094247.165
5573540	7/18/1998	284	1.32	426.63	1857	38.8088%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2087793.075
5573540	8/9/1995	284	1.32	426.63	1857	38.8088%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2087793.075
5573540	5/12/2004	283	1.32	425.31	1859	38.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2081338.985
5573540	6/21/1991	283	1.32	425.31	1859	38.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2081338.985
5573540	8/7/2008	283	1.32	425.31	1859	38.8506%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2081338.985
5573540	5/24/2003	282	1.32	423.99	1862	38.9133%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2074884.895
5573540	7/6/1999	282	1.32	423.99	1862	38.9133%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2074884.895
5573540	9/10/1992	282	1.32	423.99	1862	38.9133%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2074884.895
5573540	10/8/2003	282	1.32	423.99	1862	38.9133%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2074884.895
5573540	5/5/2014	281	1.32	422.67	1866	38.9969%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2068430.805
5573540	9/3/2009	281	1.32	422.67	1866	38.9969%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2068430.805
5573540	5/7/1992	280	1.32	421.35	1868	39.0387%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2061976.715
5573540	6/19/2006	280	1.32	421.35	1868	39.0387%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2061976.715
5573540	7/5/1995	280	1.32	421.35	1868	39.0387%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2061976.715
5573540	7/2/1997	280	1.32	421.35	1868	39.0387%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2061976.715
5573540	6/18/1994	279	1.32	420.03	1872	39.1223%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2055522.625
5573540	8/29/1990	279	1.32	420.03	1872	39.1223%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2055522.625
5573540	10/13/2008	279	1.32	420.03	1872	39.1223%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2055522.625
5573540	5/29/2003	278	1.32	418.72	1875	39.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2049068.535
5573540	5/30/2015	278	1.32	418.72	1875	39.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2049068.535
5573540	6/27/1996	278	1.32	418.72	1875	39.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2049068.535
5573540	6/22/1997	278	1.32	418.72	1875	39.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2049068.535
5573540	7/22/1992	278	1.32	418.72	1875	39.1850%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2049068.535
5573540	5/26/1997	277	1.32	417.40	1880	39.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2042614.445
5573540	5/11/2000	277	1.32	417.40	1880	39.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2042614.445
5573540	6/19/2000	277	1.32	417.40	1880	39.2894%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2042614.445
5573540	6/23/2003	276	1.32	416.08	1883	39.3521%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2036160.355
5573540	7/1/2002	276	1.32	416.08	1883	39.3521%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2036160.355
5573540	10/24/2004	276	1.32	416.08	1883	39.3521%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2036160.355
5573540	5/28/1992	275	1.32	414.76	1886	39.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2029706.265

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/17/1997	275	1.32	414.76	1886	39.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2029706.265
5573540	6/28/2003	275	1.32	414.76	1886	39.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2029706.265
5573540	7/27/1999	275	1.32	414.76	1886	39.4148%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2029706.265
5573540	5/27/1992	274	1.32	413.44	1890	39.4984%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2023252.175
5573540	5/11/2011	274	1.32	413.44	1890	39.4984%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2023252.175
5573540	9/8/2003	274	1.32	413.44	1890	39.4984%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2023252.175
5573540	5/22/2001	273	1.32	412.12	1893	39.5611%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2016798.085
5573540	5/27/2014	273	1.32	412.12	1893	39.5611%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2016798.085
5573540	5/24/2015	273	1.32	412.12	1893	39.5611%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2016798.085
5573540	8/30/1990	272	1.32	410.80	1896	39.6238%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2010343.995
5573540	10/1/2008	272	1.32	410.80	1896	39.6238%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2010343.995
5573540	10/23/2008	272	1.32	410.80	1896	39.6238%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2010343.995
5573540	5/25/1992	271	1.32	409.48	1899	39.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2003889.905
5573540	5/3/2000	271	1.32	409.48	1899	39.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2003889.905
5573540	7/30/2014	271	1.32	409.48	1899	39.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2003889.905
5573540	8/21/1997	271	1.32	409.48	1899	39.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2003889.905
5573540	8/9/2003	271	1.32	409.48	1899	39.6865%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	2003889.905
5573540	6/19/2001	270	1.32	408.17	1904	39.7910%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1997435.815
5573540	6/19/2005	270	1.32	408.17	1904	39.7910%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1997435.815
5573540	7/26/1998	270	1.32	408.17	1904	39.7910%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1997435.815
5573540	7/7/1999	270	1.32	408.17	1904	39.7910%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1997435.815
5573540	6/14/1992	269	1.32	406.85	1908	39.8746%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1990981.725
5573540	7/8/1997	268	1.32	405.53	1909	39.8955%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1984527.635
5573540	5/27/2001	267	1.32	404.21	1910	39.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1978073.545
5573540	6/6/1994	267	1.32	404.21	1910	39.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1978073.545
5573540	7/12/1997	267	1.32	404.21	1910	39.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1978073.545
5573540	7/15/2006	267	1.32	404.21	1910	39.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1978073.545
5573540	8/30/2002	267	1.32	404.21	1910	39.9164%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1978073.545
5573540	5/29/1993	266	1.32	402.89	1915	40.0209%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1971619.455
5573540	8/10/1992	265	1.32	401.57	1916	40.0418%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1965165.365
5573540	7/9/1997	264	1.32	400.25	1917	40.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1958711.275
5573540	5/15/1992	263	1.32	398.93	1918	40.0836%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1952257.185
5573540	7/11/1997	263	1.32	398.93	1918	40.0836%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1952257.185
5573540	7/12/2010	263	1.32	398.93	1918	40.0836%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1952257.185
5573540	5/7/1990	261	1.32	396.30	1921	40.1463%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1939349.005
5573540	6/20/2006	261	1.32	396.30	1921	40.1463%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1939349.005
5573540	6/7/1994	260	1.32	394.98	1923	40.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1932894.915
5573540	7/1/2003	260	1.32	394.98	1923	40.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1932894.915
5573540	7/26/2015	260	1.32	394.98	1923	40.1881%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1932894.915
5573540	10/30/2006	258	1.32	392.34	1926	40.2508%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1919986.735
5573540	7/15/1997	257	1.32	391.02	1927	40.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1913532.645
5573540	8/2/2014	257	1.32	391.02	1927	40.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1913532.645
5573540	5/24/2000	256	1.32	389.70	1929	40.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1907078.555
5573540	6/12/2000	256	1.32	389.70	1929	40.3135%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1907078.555
5573540	5/26/2003	255	1.32	388.38	1931	40.3553%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1900624.465
5573540	5/15/2007	255	1.32	388.38	1931	40.3553%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1900624.465

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/26/2015	254	1.32	387.06	1933	40.3971%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1894170.375
5573540	6/1/2003	254	1.32	387.06	1933	40.3971%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1894170.375
5573540	5/28/1993	253	1.32	385.74	1935	40.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1887716.285
5573540	5/29/2001	253	1.32	385.74	1935	40.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1887716.285
5573540	5/11/2014	253	1.32	385.74	1935	40.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1887716.285
5573540	7/5/2002	253	1.32	385.74	1935	40.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1887716.285
5573540	7/7/2011	253	1.32	385.74	1935	40.4389%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1887716.285
5573540	7/24/1996	252	1.32	384.43	1940	40.5434%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1881262.195
5573540	8/11/1993	252	1.32	384.43	1940	40.5434%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1881262.195
5573540	6/5/1994	251	1.32	383.11	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1874808.105
5573540	6/16/1994	251	1.32	383.11	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1874808.105
5573540	7/27/1998	251	1.32	383.11	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1874808.105
5573540	7/24/2004	251	1.32	383.11	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1874808.105
5573540	7/9/2010	251	1.32	383.11	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1874808.105
5573540	7/13/2010	251	1.32	383.11	1942	40.5852%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1874808.105
5573540	7/11/2010	250	1.32	381.79	1948	40.7106%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1868354.015
5573540	5/14/2007	249	1.32	380.47	1949	40.7315%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1861899.925
5573540	5/13/2011	248	1.32	379.15	1950	40.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1855445.835
5573540	9/4/1997	248	1.32	379.15	1950	40.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1855445.835
5573540	9/3/2004	248	1.32	379.15	1950	40.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1855445.835
5573540	6/4/1994	247	1.32	377.83	1953	40.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1848991.745
5573540	5/10/2000	246	1.32	376.51	1954	40.8359%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1842537.655
5573540	6/9/2004	246	1.32	376.51	1954	40.8359%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1842537.655
5573540	5/18/1997	245	1.32	375.19	1956	40.8777%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1836083.565
5573540	5/19/1997	245	1.32	375.19	1956	40.8777%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1836083.565
5573540	5/6/2005	244	1.32	373.87	1958	40.9195%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1829629.475
5573540	5/10/2005	244	1.32	373.87	1958	40.9195%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1829629.475
5573540	7/18/2000	244	1.32	373.87	1958	40.9195%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1829629.475
5573540	5/27/1993	243	1.32	372.56	1961	40.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1823175.385
5573540	5/19/2007	243	1.32	372.56	1961	40.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1823175.385
5573540	7/14/2011	243	1.32	372.56	1961	40.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1823175.385
5573540	10/17/2008	243	1.32	372.56	1961	40.9822%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1823175.385
5573540	5/20/1997	241	1.32	369.92	1965	41.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1810267.205
5573540	5/25/2015	241	1.32	369.92	1965	41.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1810267.205
5573540	7/10/1997	241	1.32	369.92	1965	41.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1810267.205
5573540	8/14/1992	241	1.32	369.92	1965	41.0658%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1810267.205
5573540	6/11/1994	240	1.32	368.60	1969	41.1494%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1803813.115
5573540	7/6/2002	240	1.32	368.60	1969	41.1494%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1803813.115
5573540	5/31/1993	239	1.32	367.28	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1797359.025
5573540	5/2/1997	239	1.32	367.28	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1797359.025
5573540	5/21/1997	239	1.32	367.28	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1797359.025
5573540	5/11/2001	239	1.32	367.28	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1797359.025
5573540	5/20/2007	239	1.32	367.28	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1797359.025
5573540	5/5/2012	239	1.32	367.28	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1797359.025
5573540	8/13/1992	239	1.32	367.28	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1797359.025
5573540	8/16/1993	239	1.32	367.28	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1797359.025

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/14/1995	239	1.32	367.28	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1797359.025
5573540	8/22/1997	239	1.32	367.28	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1797359.025
5573540	8/24/2006	239	1.32	367.28	1971	41.1912%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1797359.025
5573540	5/25/2005	238	1.32	365.96	1982	41.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1790904.935
5573540	5/10/2007	238	1.32	365.96	1982	41.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1790904.935
5573540	5/4/2015	238	1.32	365.96	1982	41.4211%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1790904.935
5573540	8/10/2003	236	1.32	363.32	1985	41.4838%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1777996.755
5573540	6/3/2014	235	1.32	362.01	1986	41.5047%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1771542.665
5573540	6/8/2006	234	1.32	360.69	1987	41.5256%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1765088.575
5573540	7/10/2010	234	1.32	360.69	1987	41.5256%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1765088.575
5573540	8/8/1998	233	1.32	359.37	1989	41.5674%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1758634.485
5573540	7/6/2004	232	1.32	358.05	1990	41.5883%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1752180.395
5573540	5/21/1993	231	1.32	356.73	1991	41.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1745726.305
5573540	5/31/1994	231	1.32	356.73	1991	41.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1745726.305
5573540	7/21/2013	231	1.32	356.73	1991	41.6092%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1745726.305
5573540	5/23/2001	230	1.32	355.41	1994	41.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1739272.215
5573540	5/31/2001	230	1.32	355.41	1994	41.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1739272.215
5573540	7/18/2006	230	1.32	355.41	1994	41.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1739272.215
5573540	5/12/2000	229	1.32	354.09	1997	41.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1732818.125
5573540	5/25/2003	229	1.32	354.09	1997	41.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1732818.125
5573540	7/21/2015	229	1.32	354.09	1997	41.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1732818.125
5573540	10/21/2001	229	1.32	354.09	1997	41.7346%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1732818.125
5573540	10/23/2004	228	1.32	352.77	2001	41.8182%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1726364.035
5573540	6/1/2007	227	1.32	351.45	2002	41.8391%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1719909.945
5573540	7/9/1995	227	1.32	351.45	2002	41.8391%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1719909.945
5573540	8/28/2014	227	1.32	351.45	2002	41.8391%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1719909.945
5573540	5/21/2007	226	1.32	350.14	2005	41.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1713455.855
5573540	7/8/1995	226	1.32	350.14	2005	41.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1713455.855
5573540	8/9/1998	226	1.32	350.14	2005	41.9018%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1713455.855
5573540	8/11/1992	225	1.32	348.82	2008	41.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1707001.765
5573540	8/5/2003	225	1.32	348.82	2008	41.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1707001.765
5573540	8/6/2008	225	1.32	348.82	2008	41.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1707001.765
5573540	10/31/1990	225	1.32	348.82	2008	41.9645%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1707001.765
5573540	5/1/1997	224	1.32	347.50	2012	42.0481%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1700547.675
5573540	8/23/2006	224	1.32	347.50	2012	42.0481%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1700547.675
5573540	5/25/1997	223	1.32	346.18	2014	42.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1694093.585
5573540	5/12/2014	223	1.32	346.18	2014	42.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1694093.585
5573540	8/28/1997	223	1.32	346.18	2014	42.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1694093.585
5573540	8/9/2014	223	1.32	346.18	2014	42.0899%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1694093.585
5573540	6/21/2001	222	1.32	344.86	2018	42.1735%	Fecal_coliform	420	cfu/100mL	200	283.2	3544042.939	1687639.495
5573540	5/12/2001	221	1.32	343.54	2019	42.1944%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1681185.405
5573540	7/2/1992	221	1.32	343.54	2019	42.1944%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1681185.405
5573540	5/22/1997	220	1.32	342.22	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1674731.315
5573540	5/3/2015	220	1.32	342.22	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1674731.315
5573540	6/24/2003	220	1.32	342.22	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1674731.315
5573540	6/29/2003	220	1.32	342.22	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1674731.315

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/4/2006	220	1.32	342.22	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1674731.315
5573540	9/8/2004	220	1.32	342.22	2021	42.2362%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1674731.315
5573540	5/9/2005	219	1.32	340.90	2027	42.3615%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1668277.225
5573540	6/5/1992	219	1.32	340.90	2027	42.3615%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1668277.225
5573540	6/12/1994	219	1.32	340.90	2027	42.3615%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1668277.225
5573540	10/8/1990	219	1.32	340.90	2027	42.3615%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1668277.225
5573540	6/12/2006	217	1.32	338.27	2031	42.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1655369.045
5573540	6/23/2007	217	1.32	338.27	2031	42.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1655369.045
5573540	7/12/1994	217	1.32	338.27	2031	42.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1655369.045
5573540	9/9/2003	217	1.32	338.27	2031	42.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1655369.045
5573540	10/30/1990	217	1.32	338.27	2031	42.4451%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1655369.045
5573540	5/24/1997	216	1.32	336.95	2036	42.5496%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1648914.955
5573540	7/6/1995	216	1.32	336.95	2036	42.5496%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1648914.955
5573540	10/21/2008	216	1.32	336.95	2036	42.5496%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1648914.955
5573540	5/21/2000	215	1.32	335.63	2039	42.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1642460.865
5573540	5/4/2004	215	1.32	335.63	2039	42.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1642460.865
5573540	6/11/2003	215	1.32	335.63	2039	42.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1642460.865
5573540	9/9/2009	215	1.32	335.63	2039	42.6123%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1642460.865
5573540	5/29/1992	214	1.32	334.31	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1636006.775
5573540	6/15/1994	214	1.32	334.31	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1636006.775
5573540	6/28/2008	214	1.32	334.31	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1636006.775
5573540	7/7/1995	214	1.32	334.31	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1636006.775
5573540	8/4/2015	214	1.32	334.31	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1636006.775
5573540	9/3/1997	214	1.32	334.31	2043	42.6959%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1636006.775
5573540	5/22/2007	213	1.32	332.99	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1629552.685
5573540	5/10/2014	213	1.32	332.99	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1629552.685
5573540	5/27/2015	213	1.32	332.99	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1629552.685
5573540	6/21/2013	213	1.32	332.99	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1629552.685
5573540	7/21/2009	213	1.32	332.99	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1629552.685
5573540	8/7/2014	213	1.32	332.99	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1629552.685
5573540	10/1/2014	213	1.32	332.99	2049	42.8213%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1629552.685
5573540	10/7/2008	212	1.32	331.67	2056	42.9676%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1623098.595
5573540	5/23/2000	211	1.32	330.35	2057	42.9885%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1616644.505
5573540	6/6/1992	211	1.32	330.35	2057	42.9885%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1616644.505
5573540	9/3/2006	211	1.32	330.35	2057	42.9885%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1616644.505
5573540	5/28/2007	210	1.32	329.03	2060	43.0512%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1610190.415
5573540	7/23/2000	209	1.32	327.71	2061	43.0721%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1603736.325
5573540	7/20/1997	208	1.32	326.40	2062	43.0930%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1597282.235
5573540	8/3/2014	208	1.32	326.40	2062	43.0930%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1597282.235
5573540	7/13/1997	207	1.32	325.08	2064	43.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1590828.145
5573540	7/23/2004	207	1.32	325.08	2064	43.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1590828.145
5573540	7/14/2010	207	1.32	325.08	2064	43.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1590828.145
5573540	10/2/2008	207	1.32	325.08	2064	43.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1590828.145
5573540	10/20/2008	207	1.32	325.08	2064	43.1348%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1590828.145
5573540	9/23/2015	206	1.32	323.76	2069	43.2393%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1584374.055
5573540	5/6/2010	205	1.32	322.44	2070	43.2602%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1577919.965

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/16/2005	204	1.32	321.12	2071	43.2811%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1571465.875
5573540	7/20/2004	204	1.32	321.12	2071	43.2811%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1571465.875
5573540	5/18/2000	203	1.32	319.80	2073	43.3229%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1565011.785
5573540	7/28/1999	202	1.32	318.48	2074	43.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1558557.695
5573540	7/4/2002	202	1.32	318.48	2074	43.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1558557.695
5573540	9/2/1992	202	1.32	318.48	2074	43.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1558557.695
5573540	8/2/2003	201	1.32	317.16	2077	43.4065%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1552103.605
5573540	10/18/2008	201	1.32	317.16	2077	43.4065%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1552103.605
5573540	5/1/1992	200	1.32	315.85	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1545649.515
5573540	5/25/2000	200	1.32	315.85	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1545649.515
5573540	8/26/2004	200	1.32	315.85	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1545649.515
5573540	8/5/2014	200	1.32	315.85	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1545649.515
5573540	10/19/2008	200	1.32	315.85	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1545649.515
5573540	10/20/2009	200	1.32	315.85	2079	43.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1545649.515
5573540	5/13/2001	199	1.32	314.53	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1539195.425
5573540	5/8/2015	199	1.32	314.53	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1539195.425
5573540	7/17/1999	199	1.32	314.53	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1539195.425
5573540	7/24/2000	199	1.32	314.53	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1539195.425
5573540	7/17/2013	199	1.32	314.53	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1539195.425
5573540	10/4/2008	199	1.32	314.53	2085	43.5737%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1539195.425
5573540	7/3/2002	198	1.32	313.21	2091	43.6991%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1532741.335
5573540	5/2/2015	197	1.32	311.89	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1526287.245
5573540	6/27/2001	197	1.32	311.89	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1526287.245
5573540	7/13/1994	197	1.32	311.89	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1526287.245
5573540	7/31/1998	197	1.32	311.89	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1526287.245
5573540	7/25/2004	197	1.32	311.89	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1526287.245
5573540	10/14/2008	197	1.32	311.89	2092	43.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1526287.245
5573540	5/21/2001	196	1.32	310.57	2098	43.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1519833.155
5573540	6/4/2003	196	1.32	310.57	2098	43.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1519833.155
5573540	7/23/2010	196	1.32	310.57	2098	43.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1519833.155
5573540	9/7/2004	196	1.32	310.57	2098	43.8454%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1519833.155
5573540	6/25/1997	195	1.32	309.25	2102	43.9289%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1513379.065
5573540	7/8/2007	195	1.32	309.25	2102	43.9289%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1513379.065
5573540	8/4/2009	194	1.32	307.93	2104	43.9707%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1506924.975
5573540	5/8/2005	193	1.32	306.61	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1500470.885
5573540	6/12/1992	193	1.32	306.61	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1500470.885
5573540	7/14/1997	193	1.32	306.61	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1500470.885
5573540	7/19/2010	193	1.32	306.61	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1500470.885
5573540	8/6/2000	193	1.32	306.61	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1500470.885
5573540	8/4/2008	193	1.32	306.61	2105	43.9916%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1500470.885
5573540	5/12/2011	192	1.32	305.29	2111	44.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1494016.795
5573540	5/30/1993	191	1.32	303.98	2112	44.1379%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1487562.705
5573540	7/31/2015	191	1.32	303.98	2112	44.1379%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1487562.705
5573540	10/16/2009	191	1.32	303.98	2112	44.1379%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1487562.705
5573540	10/5/2008	190	1.32	302.66	2115	44.2006%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1481108.615
5573540	5/8/2007	189	1.32	301.34	2116	44.2215%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1474654.525

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/12/1992	189	1.32	301.34	2116	44.2215%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1474654.525
5573540	8/1/2015	189	1.32	301.34	2116	44.2215%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1474654.525
5573540	5/27/2007	188	1.32	300.02	2119	44.2842%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1468200.435
5573540	7/20/2013	188	1.32	300.02	2119	44.2842%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1468200.435
5573540	8/21/1990	188	1.32	300.02	2119	44.2842%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1468200.435
5573540	7/6/2011	186	1.32	297.38	2122	44.3469%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1455292.255
5573540	5/15/2005	185	1.32	296.06	2123	44.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1448838.165
5573540	7/4/1992	185	1.32	296.06	2123	44.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1448838.165
5573540	7/3/1996	185	1.32	296.06	2123	44.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1448838.165
5573540	7/24/1998	185	1.32	296.06	2123	44.3678%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1448838.165
5573540	5/26/1993	184	1.32	294.74	2127	44.4514%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1442384.075
5573540	8/3/2003	184	1.32	294.74	2127	44.4514%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1442384.075
5573540	8/6/2014	184	1.32	294.74	2127	44.4514%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1442384.075
5573540	5/28/2015	183	1.32	293.42	2130	44.5141%	Fecal_coliform	228	cfu/100mL	200	283.2	1636960.183	1435929.985
5573540	7/20/1990	183	1.32	293.42	2130	44.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1435929.985
5573540	8/8/1991	183	1.32	293.42	2130	44.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1435929.985
5573540	9/11/1992	183	1.32	293.42	2130	44.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1435929.985
5573540	10/3/2008	183	1.32	293.42	2130	44.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1435929.985
5573540	7/23/1996	182	1.32	292.11	2135	44.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1429475.895
5573540	5/30/2003	181	1.32	290.79	2136	44.6395%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1423021.805
5573540	10/15/2000	181	1.32	290.79	2136	44.6395%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1423021.805
5573540	5/12/1992	180	1.32	289.47	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1416567.715
5573540	6/25/2003	180	1.32	289.47	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1416567.715
5573540	7/6/1996	180	1.32	289.47	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1416567.715
5573540	7/7/2002	180	1.32	289.47	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1416567.715
5573540	8/29/1997	180	1.32	289.47	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1416567.715
5573540	8/1/2014	180	1.32	289.47	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1416567.715
5573540	8/4/2014	180	1.32	289.47	2138	44.6813%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1416567.715
5573540	5/31/2003	179	1.32	288.15	2145	44.8276%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1410113.625
5573540	6/2/2007	179	1.32	288.15	2145	44.8276%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1410113.625
5573540	9/1/1993	178	1.32	286.83	2147	44.8694%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1403659.535
5573540	5/26/2007	177	1.32	285.51	2148	44.8903%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1397205.445
5573540	5/30/2001	176	1.32	284.19	2149	44.9112%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1390751.355
5573540	8/10/2014	176	1.32	284.19	2149	44.9112%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1390751.355
5573540	6/7/2003	175	1.32	282.87	2151	44.9530%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1384297.265
5573540	6/3/2007	175	1.32	282.87	2151	44.9530%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1384297.265
5573540	7/26/2003	175	1.32	282.87	2151	44.9530%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1384297.265
5573540	7/16/2010	175	1.32	282.87	2151	44.9530%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1384297.265
5573540	8/11/2006	175	1.32	282.87	2151	44.9530%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1384297.265
5573540	7/30/2015	174	1.32	281.55	2156	45.0575%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1377843.175
5573540	8/25/2006	174	1.32	281.55	2156	45.0575%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1377843.175
5573540	10/6/2008	173	1.32	280.24	2158	45.0993%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1371389.085
5573540	5/29/2015	172	1.32	278.92	2159	45.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1364934.995
5573540	8/4/2003	172	1.32	278.92	2159	45.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1364934.995
5573540	8/3/2015	172	1.32	278.92	2159	45.1202%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1364934.995
5573540	7/15/2010	171	1.32	277.60	2162	45.1829%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1358480.905

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/6/2009	171	1.32	277.60	2162	45.1829%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1358480.905
5573540	5/16/1992	170	1.32	276.28	2164	45.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1352026.815
5573540	6/5/2007	170	1.32	276.28	2164	45.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1352026.815
5573540	7/31/1990	170	1.32	276.28	2164	45.2247%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1352026.815
5573540	6/1/2001	168	1.32	273.64	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1339118.635
5573540	6/4/2007	168	1.32	273.64	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1339118.635
5573540	7/19/1990	168	1.32	273.64	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1339118.635
5573540	7/13/1996	168	1.32	273.64	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1339118.635
5573540	7/20/1998	168	1.32	273.64	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1339118.635
5573540	7/27/2003	168	1.32	273.64	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1339118.635
5573540	7/28/2003	168	1.32	273.64	2167	45.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1339118.635
5573540	5/23/1997	167	1.32	272.32	2174	45.4336%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1332664.545
5573540	5/17/2000	167	1.32	272.32	2174	45.4336%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1332664.545
5573540	6/6/2003	167	1.32	272.32	2174	45.4336%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1332664.545
5573540	7/29/2009	167	1.32	272.32	2174	45.4336%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1332664.545
5573540	9/12/2008	167	1.32	272.32	2174	45.4336%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1332664.545
5573540	7/29/2003	166	1.32	271.00	2179	45.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1326210.455
5573540	7/30/2003	165	1.32	269.68	2180	45.5590%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1319756.365
5573540	5/14/2005	164	1.32	268.37	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1313302.275
5573540	5/7/2015	164	1.32	268.37	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1313302.275
5573540	7/31/2003	164	1.32	268.37	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1313302.275
5573540	8/19/1993	164	1.32	268.37	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1313302.275
5573540	8/3/2009	164	1.32	268.37	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1313302.275
5573540	8/23/2014	164	1.32	268.37	2181	45.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1313302.275
5573540	7/9/1999	163	1.32	267.05	2187	45.7053%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1306848.185
5573540	5/26/2006	162	1.32	265.73	2188	45.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1300394.095
5573540	10/8/2000	162	1.32	265.73	2188	45.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1300394.095
5573540	5/23/2007	161	1.32	264.41	2190	45.7680%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1293940.005
5573540	6/13/2005	160	1.32	263.09	2191	45.7889%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1287485.915
5573540	5/4/2003	159	1.32	261.77	2192	45.8098%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1281031.825
5573540	7/22/2009	159	1.32	261.77	2192	45.8098%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1281031.825
5573540	7/31/2014	159	1.32	261.77	2192	45.8098%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1281031.825
5573540	7/29/2015	159	1.32	261.77	2192	45.8098%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1281031.825
5573540	8/1/1998	159	1.32	261.77	2192	45.8098%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1281031.825
5573540	5/20/2005	158	1.32	260.45	2197	45.9143%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1274577.735
5573540	7/22/2010	158	1.32	260.45	2197	45.9143%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1274577.735
5573540	8/2/1998	158	1.32	260.45	2197	45.9143%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1274577.735
5573540	6/16/1992	157	1.32	259.13	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1268123.645
5573540	6/6/2007	157	1.32	259.13	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1268123.645
5573540	7/25/2009	157	1.32	259.13	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1268123.645
5573540	8/5/1990	157	1.32	259.13	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1268123.645
5573540	8/5/2006	157	1.32	259.13	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1268123.645
5573540	8/2/2015	157	1.32	259.13	2200	45.9770%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1268123.645
5573540	6/2/1992	156	1.32	257.82	2206	46.1024%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1261669.555
5573540	6/28/1993	156	1.32	257.82	2206	46.1024%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1261669.555
5573540	7/27/2009	156	1.32	257.82	2206	46.1024%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1261669.555

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/17/2010	155	1.32	256.50	2209	46.1651%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1255215.465
5573540	5/25/2007	154	1.32	255.18	2210	46.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1248761.375
5573540	7/19/2013	154	1.32	255.18	2210	46.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1248761.375
5573540	7/27/2015	154	1.32	255.18	2210	46.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1248761.375
5573540	8/12/2006	154	1.32	255.18	2210	46.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1248761.375
5573540	8/27/2006	154	1.32	255.18	2210	46.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1248761.375
5573540	5/17/1992	153	1.32	253.86	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1242307.285
5573540	5/30/2005	153	1.32	253.86	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1242307.285
5573540	6/4/1992	153	1.32	253.86	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1242307.285
5573540	6/13/2006	153	1.32	253.86	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1242307.285
5573540	7/26/2009	153	1.32	253.86	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1242307.285
5573540	7/28/2009	153	1.32	253.86	2215	46.2905%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1242307.285
5573540	8/10/2006	152	1.32	252.54	2221	46.4159%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1235853.195
5573540	9/9/2008	152	1.32	252.54	2221	46.4159%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1235853.195
5573540	9/21/1992	151	1.32	251.22	2223	46.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1229399.105
5573540	5/13/1992	150	1.32	249.90	2224	46.4786%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1222945.015
5573540	5/9/2014	150	1.32	249.90	2224	46.4786%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1222945.015
5573540	6/21/1994	150	1.32	249.90	2224	46.4786%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1222945.015
5573540	7/2/2002	150	1.32	249.90	2224	46.4786%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1222945.015
5573540	8/5/2009	150	1.32	249.90	2224	46.4786%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1222945.015
5573540	7/10/1995	149	1.32	248.58	2229	46.5831%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1216490.925
5573540	6/5/2003	148	1.32	247.26	2230	46.6040%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1210036.835
5573540	5/26/2005	147	1.32	245.95	2231	46.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1203582.745
5573540	5/31/2005	147	1.32	245.95	2231	46.6249%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1203582.745
5573540	8/7/2000	146	1.32	244.63	2233	46.6667%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1197128.655
5573540	8/11/2014	146	1.32	244.63	2233	46.6667%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1197128.655
5573540	7/11/1994	145	1.32	243.31	2235	46.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1190674.565
5573540	7/26/1995	145	1.32	243.31	2235	46.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1190674.565
5573540	8/24/1990	145	1.32	243.31	2235	46.7085%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1190674.565
5573540	5/1/2015	144	1.32	241.99	2238	46.7712%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1184220.475
5573540	6/1/2005	144	1.32	241.99	2238	46.7712%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1184220.475
5573540	7/3/1994	144	1.32	241.99	2238	46.7712%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1184220.475
5573540	8/25/1997	144	1.32	241.99	2238	46.7712%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1184220.475
5573540	6/10/2003	143	1.32	240.67	2242	46.8548%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1177766.385
5573540	8/1/2003	143	1.32	240.67	2242	46.8548%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1177766.385
5573540	6/20/1994	142	1.32	239.35	2244	46.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1171312.295
5573540	6/9/2003	142	1.32	239.35	2244	46.8966%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1171312.295
5573540	5/29/2005	141	1.32	238.03	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1164858.205
5573540	7/24/1992	141	1.32	238.03	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1164858.205
5573540	7/14/1994	141	1.32	238.03	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1164858.205
5573540	7/25/1995	141	1.32	238.03	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1164858.205
5573540	8/5/2008	141	1.32	238.03	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1164858.205
5573540	10/18/2001	141	1.32	238.03	2246	46.9383%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1164858.205
5573540	5/7/2005	140	1.32	236.71	2252	47.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1158404.115
5573540	5/21/2012	140	1.32	236.71	2252	47.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1158404.115
5573540	5/22/2012	140	1.32	236.71	2252	47.0637%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1158404.115

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/6/1991	139	1.32	235.39	2255	47.1264%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1151950.025
5573540	6/8/2003	139	1.32	235.39	2255	47.1264%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1151950.025
5573540	6/20/2005	139	1.32	235.39	2255	47.1264%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1151950.025
5573540	8/2/2009	139	1.32	235.39	2255	47.1264%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1151950.025
5573540	6/21/2006	138	1.32	234.08	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1145495.935
5573540	7/15/1994	138	1.32	234.08	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1145495.935
5573540	7/16/1994	138	1.32	234.08	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1145495.935
5573540	7/14/1996	138	1.32	234.08	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1145495.935
5573540	7/18/2010	138	1.32	234.08	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1145495.935
5573540	8/26/2006	138	1.32	234.08	2259	47.2100%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1145495.935
5573540	7/17/1994	137	1.32	232.76	2265	47.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1139041.845
5573540	7/21/2000	137	1.32	232.76	2265	47.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1139041.845
5573540	7/24/2009	137	1.32	232.76	2265	47.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1139041.845
5573540	8/6/2006	137	1.32	232.76	2265	47.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1139041.845
5573540	10/18/2000	137	1.32	232.76	2265	47.3354%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1139041.845
5573540	9/3/2014	136	1.32	231.44	2270	47.4399%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1132587.755
5573540	10/16/1992	136	1.32	231.44	2270	47.4399%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1132587.755
5573540	6/27/1994	135	1.32	230.12	2272	47.4817%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1126133.665
5573540	7/30/2009	135	1.32	230.12	2272	47.4817%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1126133.665
5573540	8/10/1998	135	1.32	230.12	2272	47.4817%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1126133.665
5573540	9/29/2015	135	1.32	230.12	2272	47.4817%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1126133.665
5573540	6/21/1995	134	1.32	228.80	2276	47.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1119679.575
5573540	8/1/1990	134	1.32	228.80	2276	47.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1119679.575
5573540	9/12/1992	134	1.32	228.80	2276	47.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1119679.575
5573540	5/28/2006	133	1.32	227.48	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1113225.485
5573540	6/20/1992	133	1.32	227.48	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1113225.485
5573540	8/4/1990	133	1.32	227.48	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1113225.485
5573540	8/8/2006	133	1.32	227.48	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1113225.485
5573540	8/9/2006	133	1.32	227.48	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1113225.485
5573540	9/29/1992	133	1.32	227.48	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1113225.485
5573540	10/10/2003	133	1.32	227.48	2279	47.6280%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1113225.485
5573540	6/10/1991	132	1.32	226.16	2286	47.7743%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1106771.395
5573540	9/2/1993	132	1.32	226.16	2286	47.7743%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1106771.395
5573540	9/12/1997	132	1.32	226.16	2286	47.7743%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1106771.395
5573540	5/5/1995	131	1.32	224.84	2289	47.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1100317.305
5573540	5/10/2001	131	1.32	224.84	2289	47.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1100317.305
5573540	7/24/2007	131	1.32	224.84	2289	47.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1100317.305
5573540	9/5/2004	131	1.32	224.84	2289	47.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1100317.305
5573540	6/20/2000	130	1.32	223.52	2293	47.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1093863.215
5573540	7/5/1994	130	1.32	223.52	2293	47.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1093863.215
5573540	7/24/2013	130	1.32	223.52	2293	47.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1093863.215
5573540	9/1/2002	130	1.32	223.52	2293	47.9206%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1093863.215
5573540	6/18/2006	129	1.32	222.21	2297	48.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1087409.125
5573540	8/23/1995	129	1.32	222.21	2297	48.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1087409.125
5573540	9/6/2004	129	1.32	222.21	2297	48.0042%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1087409.125
5573540	5/9/2000	128	1.32	220.89	2300	48.0669%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1080955.035

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/2/2005	128	1.32	220.89	2300	48.0669%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1080955.035
5573540	7/7/2008	128	1.32	220.89	2300	48.0669%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1080955.035
5573540	7/23/2009	128	1.32	220.89	2300	48.0669%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1080955.035
5573540	6/22/1994	127	1.32	219.57	2304	48.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1074500.945
5573540	8/13/1990	127	1.32	219.57	2304	48.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1074500.945
5573540	8/21/1995	127	1.32	219.57	2304	48.1505%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1074500.945
5573540	6/23/1994	126	1.32	218.25	2307	48.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1068046.855
5573540	8/15/2010	126	1.32	218.25	2307	48.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1068046.855
5573540	8/31/2002	125	1.32	216.93	2309	48.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1061592.765
5573540	8/1/2009	125	1.32	216.93	2309	48.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1061592.765
5573540	5/17/2005	123	1.32	214.29	2311	48.2968%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1048684.585
5573540	5/28/2005	123	1.32	214.29	2311	48.2968%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1048684.585
5573540	10/12/2000	123	1.32	214.29	2311	48.2968%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1048684.585
5573540	5/24/1994	122	1.32	212.97	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1042230.496
5573540	5/6/2014	122	1.32	212.97	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1042230.496
5573540	6/9/2007	122	1.32	212.97	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1042230.496
5573540	7/5/1992	122	1.32	212.97	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1042230.496
5573540	9/10/2003	122	1.32	212.97	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1042230.496
5573540	9/30/2015	122	1.32	212.97	2314	48.3595%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1042230.496
5573540	8/15/1998	121	1.32	211.66	2320	48.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1035776.406
5573540	8/7/2006	121	1.32	211.66	2320	48.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1035776.406
5573540	9/22/1992	121	1.32	211.66	2320	48.4848%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1035776.406
5573540	5/20/2001	120	1.32	210.34	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1029322.316
5573540	6/7/1991	120	1.32	210.34	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1029322.316
5573540	7/1/1992	120	1.32	210.34	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1029322.316
5573540	8/16/1992	120	1.32	210.34	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1029322.316
5573540	9/24/2015	120	1.32	210.34	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1029322.316
5573540	10/7/2003	120	1.32	210.34	2323	48.5475%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1029322.316
5573540	8/13/2006	119	1.32	209.02	2329	48.6729%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1022868.226
5573540	8/12/2014	119	1.32	209.02	2329	48.6729%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1022868.226
5573540	5/31/1992	118	1.32	207.70	2331	48.7147%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1016414.136
5573540	8/6/2015	118	1.32	207.70	2331	48.7147%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1016414.136
5573540	10/7/1990	118	1.32	207.70	2331	48.7147%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1016414.136
5573540	5/19/2012	117	1.32	206.38	2334	48.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1009960.046
5573540	7/25/1998	117	1.32	206.38	2334	48.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1009960.046
5573540	8/18/1998	117	1.32	206.38	2334	48.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1009960.046
5573540	9/10/2009	117	1.32	206.38	2334	48.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1009960.046
5573540	7/25/2007	116	1.32	205.06	2338	48.8610%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	1003505.956
5573540	5/19/2001	115	1.32	203.74	2339	48.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	997051.8655
5573540	5/18/2012	115	1.32	203.74	2339	48.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	997051.8655
5573540	6/8/2007	115	1.32	203.74	2339	48.8819%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	997051.8655
5573540	9/28/1992	114	1.32	202.42	2342	48.9446%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	990597.7756
5573540	5/27/2005	113	1.32	201.10	2343	48.9655%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	984143.6856
5573540	8/25/2014	113	1.32	201.10	2343	48.9655%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	984143.6856
5573540	5/20/2012	112	1.32	199.79	2345	49.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	977689.5956
5573540	7/28/2015	112	1.32	199.79	2345	49.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	977689.5956

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/17/2012	110	1.32	197.15	2347	49.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	964781.4156
5573540	7/13/1991	110	1.32	197.15	2347	49.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	964781.4156
5573540	9/4/2004	110	1.32	197.15	2347	49.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	964781.4156
5573540	10/11/2000	110	1.32	197.15	2347	49.0491%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	964781.4156
5573540	6/17/1991	109	1.32	195.83	2351	49.1327%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	958327.3256
5573540	6/10/2007	109	1.32	195.83	2351	49.1327%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	958327.3256
5573540	8/31/2001	109	1.32	195.83	2351	49.1327%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	958327.3256
5573540	6/18/1992	108	1.32	194.51	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	951873.2356
5573540	6/21/1992	108	1.32	194.51	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	951873.2356
5573540	6/7/2007	108	1.32	194.51	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	951873.2356
5573540	8/7/1991	108	1.32	194.51	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	951873.2356
5573540	8/27/2014	108	1.32	194.51	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	951873.2356
5573540	9/10/2008	108	1.32	194.51	2354	49.1954%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	951873.2356
5573540	7/12/1991	107	1.32	193.19	2360	49.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	945419.1456
5573540	9/7/2008	107	1.32	193.19	2360	49.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	945419.1456
5573540	5/22/2000	106	1.32	191.87	2362	49.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	938965.0556
5573540	7/20/2000	106	1.32	191.87	2362	49.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	938965.0556
5573540	7/31/2013	106	1.32	191.87	2362	49.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	938965.0556
5573540	8/20/1990	106	1.32	191.87	2362	49.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	938965.0556
5573540	8/1/2013	106	1.32	191.87	2362	49.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	938965.0556
5573540	8/30/2014	106	1.32	191.87	2362	49.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	938965.0556
5573540	9/10/1997	106	1.32	191.87	2362	49.3626%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	938965.0556
5573540	6/7/2006	105	1.32	190.55	2369	49.5089%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	932510.9656
5573540	7/2/1996	105	1.32	190.55	2369	49.5089%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	932510.9656
5573540	9/2/2010	105	1.32	190.55	2369	49.5089%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	932510.9656
5573540	5/24/2007	104	1.32	189.23	2372	49.5716%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	926056.8756
5573540	6/19/1992	104	1.32	189.23	2372	49.5716%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	926056.8756
5573540	7/10/1994	104	1.32	189.23	2372	49.5716%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	926056.8756
5573540	8/5/2000	103	1.32	187.92	2375	49.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	919602.7856
5573540	6/28/1992	102	1.32	186.60	2376	49.6552%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	913148.6956
5573540	6/3/2005	102	1.32	186.60	2376	49.6552%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	913148.6956
5573540	7/27/1995	102	1.32	186.60	2376	49.6552%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	913148.6956
5573540	5/24/2001	101	1.32	185.28	2379	49.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	906694.6056
5573540	6/22/2013	101	1.32	185.28	2379	49.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	906694.6056
5573540	7/19/2006	101	1.32	185.28	2379	49.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	906694.6056
5573540	5/23/2012	100	1.32	183.96	2382	49.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	900240.5156
5573540	8/17/1992	100	1.32	183.96	2382	49.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	900240.5156
5573540	8/16/1999	100	1.32	183.96	2382	49.7806%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	900240.5156
5573540	6/13/1992	99	1.32	182.64	2385	49.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	893786.4256
5573540	7/29/1996	99	1.32	182.64	2385	49.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	893786.4256
5573540	8/31/2014	99	1.32	182.64	2385	49.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	893786.4256
5573540	9/4/2014	99	1.32	182.64	2385	49.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	893786.4256
5573540	7/6/1992	98	1.32	181.32	2389	49.9269%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	887332.3356
5573540	7/18/2013	98	1.32	181.32	2389	49.9269%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	887332.3356
5573540	8/6/1990	98	1.32	181.32	2389	49.9269%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	887332.3356
5573540	9/1/2014	97	1.32	180.00	2392	49.9896%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	880878.2457

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/14/2006	96	1.32	178.68	2393	50.0104%	Fecal_coliform	820	cfu/100mL	200	283.2	3585139.038	874424.1557
5573540	8/27/1993	96	1.32	178.68	2393	50.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	874424.1557
5573540	5/2/2012	95	1.32	177.36	2395	50.0522%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	867970.0657
5573540	8/23/1990	95	1.32	177.36	2395	50.0522%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	867970.0657
5573540	5/26/2000	94	1.32	176.05	2397	50.0940%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	861515.9757
5573540	7/9/2007	94	1.32	176.05	2397	50.0940%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	861515.9757
5573540	10/12/2001	94	1.32	176.05	2397	50.0940%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	861515.9757
5573540	6/30/1992	93	1.32	174.73	2400	50.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	855061.8857
5573540	7/6/1994	93	1.32	174.73	2400	50.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	855061.8857
5573540	8/30/2001	93	1.32	174.73	2400	50.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	855061.8857
5573540	9/7/2006	93	1.32	174.73	2400	50.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	855061.8857
5573540	9/6/2006	92	1.32	173.41	2404	50.2403%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	848607.7957
5573540	6/2/2001	91	1.32	172.09	2405	50.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	842153.7057
5573540	7/21/2004	91	1.32	172.09	2405	50.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	842153.7057
5573540	7/26/2004	91	1.32	172.09	2405	50.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	842153.7057
5573540	9/13/1992	91	1.32	172.09	2405	50.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	842153.7057
5573540	9/9/2004	91	1.32	172.09	2405	50.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	842153.7057
5573540	9/5/2006	91	1.32	172.09	2405	50.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	842153.7057
5573540	6/1/1992	90	1.32	170.77	2411	50.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	835699.6157
5573540	8/18/1992	90	1.32	170.77	2411	50.3866%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	835699.6157
5573540	7/7/1994	89	1.32	169.45	2413	50.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	829245.5257
5573540	7/8/1994	89	1.32	169.45	2413	50.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	829245.5257
5573540	7/31/2009	89	1.32	169.45	2413	50.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	829245.5257
5573540	7/9/1994	88	1.32	168.13	2416	50.4911%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	822791.4357
5573540	9/2/2002	88	1.32	168.13	2416	50.4911%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	822791.4357
5573540	6/22/2005	87	1.32	166.81	2418	50.5329%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	816337.3457
5573540	8/3/1998	86	1.32	165.50	2419	50.5538%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	809883.2557
5573540	5/9/2007	85	1.32	164.18	2420	50.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	803429.1657
5573540	7/6/2001	85	1.32	164.18	2420	50.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	803429.1657
5573540	7/11/2011	85	1.32	164.18	2420	50.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	803429.1657
5573540	8/8/2008	85	1.32	164.18	2420	50.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	803429.1657
5573540	6/23/2005	84	1.32	162.86	2424	50.6583%	Fecal_coliform	170	cfu/100mL	200	283.2	677428.8144	796975.0757
5573540	7/22/1996	84	1.32	162.86	2424	50.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	796975.0757
5573540	7/15/2011	84	1.32	162.86	2424	50.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	796975.0757
5573540	8/10/2015	84	1.32	162.86	2424	50.6583%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	796975.0757
5573540	6/18/1991	83	1.32	161.54	2428	50.7419%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	790520.9857
5573540	10/18/1992	83	1.32	161.54	2428	50.7419%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	790520.9857
5573540	5/18/1992	82	1.32	160.22	2430	50.7837%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	784066.8957
5573540	6/24/2005	82	1.32	160.22	2430	50.7837%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	784066.8957
5573540	9/18/2006	82	1.32	160.22	2430	50.7837%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	784066.8957
5573540	6/3/1993	81	1.32	158.90	2433	50.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	777612.8057
5573540	6/25/2005	81	1.32	158.90	2433	50.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	777612.8057
5573540	7/5/2006	81	1.32	158.90	2433	50.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	777612.8057
5573540	8/20/2014	81	1.32	158.90	2433	50.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	777612.8057
5573540	6/3/2001	80	1.32	157.58	2437	50.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	771158.7158
5573540	7/18/1994	80	1.32	157.58	2437	50.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	771158.7158

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/21/1998	80	1.32	157.58	2437	50.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	771158.7158
5573540	7/23/2007	80	1.32	157.58	2437	50.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	771158.7158
5573540	8/19/1992	80	1.32	157.58	2437	50.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	771158.7158
5573540	9/11/2006	80	1.32	157.58	2437	50.9300%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	771158.7158
5573540	6/27/2006	79	1.32	156.26	2443	51.0554%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	764704.6258
5573540	8/8/1993	79	1.32	156.26	2443	51.0554%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	764704.6258
5573540	9/21/2006	79	1.32	156.26	2443	51.0554%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	764704.6258
5573540	8/22/1990	78	1.32	154.94	2446	51.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	758250.5358
5573540	8/6/2009	78	1.32	154.94	2446	51.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	758250.5358
5573540	8/22/2009	78	1.32	154.94	2446	51.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	758250.5358
5573540	8/14/2010	78	1.32	154.94	2446	51.1181%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	758250.5358
5573540	7/11/2006	77	1.32	153.63	2450	51.2017%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	751796.4458
5573540	7/25/2013	77	1.32	153.63	2450	51.2017%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	751796.4458
5573540	8/2/2013	77	1.32	153.63	2450	51.2017%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	751796.4458
5573540	6/17/1995	76	1.32	152.31	2453	51.2644%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	745342.3558
5573540	5/16/2012	75	1.32	150.99	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	738888.2658
5573540	6/29/1992	75	1.32	150.99	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	738888.2658
5573540	6/21/2005	75	1.32	150.99	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	738888.2658
5573540	8/23/2009	75	1.32	150.99	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	738888.2658
5573540	9/3/1990	75	1.32	150.99	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	738888.2658
5573540	9/10/2006	75	1.32	150.99	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	738888.2658
5573540	9/22/2006	75	1.32	150.99	2454	51.2853%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	738888.2658
5573540	5/8/2000	74	1.32	149.67	2461	51.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	732434.1758
5573540	7/30/1998	74	1.32	149.67	2461	51.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	732434.1758
5573540	8/7/2009	74	1.32	149.67	2461	51.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	732434.1758
5573540	8/8/2009	74	1.32	149.67	2461	51.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	732434.1758
5573540	8/9/2009	74	1.32	149.67	2461	51.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	732434.1758
5573540	9/26/2015	74	1.32	149.67	2461	51.4316%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	732434.1758
5573540	5/4/2000	73	1.32	148.35	2467	51.5569%	Fecal_coliform	220	cfu/100mL	200	283.2	798578.0944	725980.0858
5573540	7/14/1991	73	1.32	148.35	2467	51.5569%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	725980.0858
5573540	8/8/2000	73	1.32	148.35	2467	51.5569%	Fecal_coliform	500	cfu/100mL	200	283.2	1814950.214	725980.0858
5573540	9/19/2006	73	1.32	148.35	2467	51.5569%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	725980.0858
5573540	9/20/2006	73	1.32	148.35	2467	51.5569%	Fecal_coliform	810	cfu/100mL	200	283.2	2940219.347	725980.0858
5573540	10/31/1995	73	1.32	148.35	2467	51.5569%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	725980.0858
5573540	6/24/2006	72	1.32	147.03	2473	51.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	719525.9958
5573540	6/26/2006	72	1.32	147.03	2473	51.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	719525.9958
5573540	8/13/2008	72	1.32	147.03	2473	51.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	719525.9958
5573540	9/4/2006	72	1.32	147.03	2473	51.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	719525.9958
5573540	9/14/2006	72	1.32	147.03	2473	51.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	719525.9958
5573540	9/25/2015	72	1.32	147.03	2473	51.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	719525.9958
5573540	7/22/2004	71	1.32	145.71	2479	51.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	713071.9058
5573540	8/14/2006	71	1.32	145.71	2479	51.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	713071.9058
5573540	9/28/2015	71	1.32	145.71	2479	51.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	713071.9058
5573540	5/9/2001	70	1.32	144.39	2482	51.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	706617.8158
5573540	6/7/2005	70	1.32	144.39	2482	51.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	706617.8158
5573540	8/13/2014	70	1.32	144.39	2482	51.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	706617.8158

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/15/2006	70	1.32	144.39	2482	51.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	706617.8158
5573540	9/16/2006	70	1.32	144.39	2482	51.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	706617.8158
5573540	10/27/1995	70	1.32	144.39	2482	51.8704%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	706617.8158
5573540	5/31/2012	69	1.32	143.07	2488	51.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	700163.7258
5573540	6/25/2006	69	1.32	143.07	2488	51.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	700163.7258
5573540	6/28/2006	69	1.32	143.07	2488	51.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	700163.7258
5573540	7/27/2013	69	1.32	143.07	2488	51.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	700163.7258
5573540	8/21/2006	69	1.32	143.07	2488	51.9958%	Fecal_coliform	680	cfu/100mL	200	283.2	2380556.668	700163.7258
5573540	8/11/2015	69	1.32	143.07	2488	51.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	700163.7258
5573540	10/20/1995	69	1.32	143.07	2488	51.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	700163.7258
5573540	7/12/1999	68	1.32	141.76	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	693709.6358
5573540	8/22/2006	68	1.32	141.76	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	693709.6358
5573540	9/12/2006	68	1.32	141.76	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	693709.6358
5573540	9/13/2006	68	1.32	141.76	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	693709.6358
5573540	9/17/2006	68	1.32	141.76	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	693709.6358
5573540	9/1/2012	68	1.32	141.76	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	693709.6358
5573540	10/31/1993	68	1.32	141.76	2495	52.1421%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	693709.6358
5573540	5/14/2012	67	1.32	140.44	2502	52.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	687255.5458
5573540	8/14/1990	67	1.32	140.44	2502	52.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	687255.5458
5573540	8/12/2008	67	1.32	140.44	2502	52.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	687255.5458
5573540	6/1/1994	66	1.32	139.12	2505	52.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	680801.4558
5573540	7/24/1995	66	1.32	139.12	2505	52.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	680801.4558
5573540	7/26/2013	66	1.32	139.12	2505	52.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	680801.4558
5573540	6/27/1993	65	1.32	137.80	2508	52.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	674347.3658
5573540	6/29/2006	65	1.32	137.80	2508	52.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	674347.3658
5573540	6/30/2006	64	1.32	136.48	2510	52.4556%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	667893.2759
5573540	7/11/1999	64	1.32	136.48	2510	52.4556%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	667893.2759
5573540	7/6/2006	64	1.32	136.48	2510	52.4556%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	667893.2759
5573540	9/11/2008	64	1.32	136.48	2510	52.4556%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	667893.2759
5573540	6/26/2005	63	1.32	135.16	2514	52.5392%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	661439.1859
5573540	5/4/2012	62	1.32	133.84	2515	52.5601%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	654985.0959
5573540	6/27/1992	62	1.32	133.84	2515	52.5601%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	654985.0959
5573540	6/6/2005	62	1.32	133.84	2515	52.5601%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	654985.0959
5573540	7/7/1996	62	1.32	133.84	2515	52.5601%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	654985.0959
5573540	8/11/2003	62	1.32	133.84	2515	52.5601%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	654985.0959
5573540	9/13/1997	62	1.32	133.84	2515	52.5601%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	654985.0959
5573540	5/14/2001	61	1.32	132.52	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	648531.0059
5573540	7/19/2000	61	1.32	132.52	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	648531.0059
5573540	8/3/2013	61	1.32	132.52	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	648531.0059
5573540	8/18/2014	61	1.32	132.52	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	648531.0059
5573540	9/9/2006	61	1.32	132.52	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	648531.0059
5573540	9/27/2015	61	1.32	132.52	2521	52.6855%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	648531.0059
5573540	6/8/2005	60	1.32	131.20	2527	52.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	642076.9159
5573540	7/15/1996	60	1.32	131.20	2527	52.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	642076.9159
5573540	7/8/2002	60	1.32	131.20	2527	52.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	642076.9159
5573540	9/24/2006	60	1.32	131.20	2527	52.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	642076.9159

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/28/1995	60	1.32	131.20	2527	52.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	642076.9159
5573540	7/21/1997	59	1.32	129.89	2532	52.9154%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	635622.8259
5573540	7/5/2001	59	1.32	129.89	2532	52.9154%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	635622.8259
5573540	8/3/1990	59	1.32	129.89	2532	52.9154%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	635622.8259
5573540	8/26/2014	59	1.32	129.89	2532	52.9154%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	635622.8259
5573540	9/8/2006	59	1.32	129.89	2532	52.9154%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	635622.8259
5573540	10/21/2009	59	1.32	129.89	2532	52.9154%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	635622.8259
5573540	9/23/2006	58	1.32	128.57	2538	53.0408%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	629168.7359
5573540	10/5/2000	58	1.32	128.57	2538	53.0408%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	629168.7359
5573540	8/14/2008	57	1.32	127.25	2540	53.0825%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	622714.6459
5573540	8/3/2010	57	1.32	127.25	2540	53.0825%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	622714.6459
5573540	6/11/2007	56	1.32	125.93	2542	53.1243%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	616260.5559
5573540	8/24/2009	56	1.32	125.93	2542	53.1243%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	616260.5559
5573540	8/10/2009	55	1.32	124.61	2544	53.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	609806.4659
5573540	9/2/1990	55	1.32	124.61	2544	53.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	609806.4659
5573540	9/11/2003	55	1.32	124.61	2544	53.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	609806.4659
5573540	10/16/2001	55	1.32	124.61	2544	53.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	609806.4659
5573540	10/29/2001	55	1.32	124.61	2544	53.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	609806.4659
5573540	10/19/2004	55	1.32	124.61	2544	53.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	609806.4659
5573540	8/6/1991	54	1.32	123.29	2550	53.2915%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	603352.3759
5573540	9/12/2003	54	1.32	123.29	2550	53.2915%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	603352.3759
5573540	9/26/2006	54	1.32	123.29	2550	53.2915%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	603352.3759
5573540	10/29/1995	54	1.32	123.29	2550	53.2915%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	603352.3759
5573540	5/5/2010	53	1.32	121.97	2554	53.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	596898.2859
5573540	6/11/2005	53	1.32	121.97	2554	53.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	596898.2859
5573540	7/21/1996	53	1.32	121.97	2554	53.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	596898.2859
5573540	7/29/2000	53	1.32	121.97	2554	53.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	596898.2859
5573540	8/5/2010	53	1.32	121.97	2554	53.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	596898.2859
5573540	7/19/1999	52	1.32	120.65	2559	53.4796%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	590444.1959
5573540	8/2/1990	52	1.32	120.65	2559	53.4796%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	590444.1959
5573540	9/5/1997	52	1.32	120.65	2559	53.4796%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	590444.1959
5573540	9/5/2014	52	1.32	120.65	2559	53.4796%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	590444.1959
5573540	10/30/1995	52	1.32	120.65	2559	53.4796%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	590444.1959
5573540	6/3/1992	51	1.32	119.34	2564	53.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	583990.1059
5573540	7/26/2007	51	1.32	119.34	2564	53.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	583990.1059
5573540	7/30/2013	51	1.32	119.34	2564	53.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	583990.1059
5573540	8/6/2010	51	1.32	119.34	2564	53.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	583990.1059
5573540	9/1/1990	51	1.32	119.34	2564	53.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	583990.1059
5573540	9/13/2003	51	1.32	119.34	2564	53.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	583990.1059
5573540	9/25/2006	51	1.32	119.34	2564	53.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	583990.1059
5573540	5/27/2006	50	1.32	118.02	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	577536.0159
5573540	7/10/1999	50	1.32	118.02	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	577536.0159
5573540	8/20/1992	50	1.32	118.02	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	577536.0159
5573540	8/31/2003	50	1.32	118.02	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	577536.0159
5573540	9/14/2003	50	1.32	118.02	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	577536.0159
5573540	9/23/2005	50	1.32	118.02	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	577536.0159

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/21/1995	50	1.32	118.02	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	577536.0159
5573540	10/20/2005	50	1.32	118.02	2571	53.7304%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	577536.0159
5573540	6/19/1991	49	1.32	116.70	2579	53.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	571081.9259
5573540	7/19/1997	49	1.32	116.70	2579	53.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	571081.9259
5573540	7/9/2001	49	1.32	116.70	2579	53.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	571081.9259
5573540	8/31/1990	49	1.32	116.70	2579	53.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	571081.9259
5573540	8/31/1992	49	1.32	116.70	2579	53.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	571081.9259
5573540	8/15/1995	49	1.32	116.70	2579	53.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	571081.9259
5573540	7/1/2006	48	1.32	115.38	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	564627.8359
5573540	8/15/1990	48	1.32	115.38	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	564627.8359
5573540	8/4/1998	48	1.32	115.38	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	564627.8359
5573540	10/26/1995	48	1.32	115.38	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	564627.8359
5573540	10/8/2009	48	1.32	115.38	2585	54.0230%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	564627.8359
5573540	5/5/2004	47	1.32	114.06	2590	54.1275%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	558173.746
5573540	5/19/2005	47	1.32	114.06	2590	54.1275%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	558173.746
5573540	6/22/1992	47	1.32	114.06	2590	54.1275%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	558173.746
5573540	6/22/2007	47	1.32	114.06	2590	54.1275%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	558173.746
5573540	8/19/1998	47	1.32	114.06	2590	54.1275%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	558173.746
5573540	8/4/2010	47	1.32	114.06	2590	54.1275%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	558173.746
5573540	8/7/2010	47	1.32	114.06	2590	54.1275%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	558173.746
5573540	6/8/1991	46	1.32	112.74	2597	54.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	551719.656
5573540	6/5/2005	46	1.32	112.74	2597	54.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	551719.656
5573540	6/23/2006	46	1.32	112.74	2597	54.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	551719.656
5573540	8/9/1991	46	1.32	112.74	2597	54.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	551719.656
5573540	8/5/2015	46	1.32	112.74	2597	54.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	551719.656
5573540	9/5/2009	46	1.32	112.74	2597	54.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	551719.656
5573540	5/18/2001	45	1.32	111.42	2603	54.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	545265.566
5573540	7/4/2006	45	1.32	111.42	2603	54.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	545265.566
5573540	8/8/2010	45	1.32	111.42	2603	54.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	545265.566
5573540	5/2/1990	44	1.32	110.10	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	538811.476
5573540	6/20/2001	44	1.32	110.10	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	538811.476
5573540	7/7/2006	44	1.32	110.10	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	538811.476
5573540	9/4/1990	44	1.32	110.10	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	538811.476
5573540	9/11/1997	44	1.32	110.10	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	538811.476
5573540	9/10/2004	44	1.32	110.10	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	538811.476
5573540	9/25/2005	44	1.32	110.10	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	538811.476
5573540	10/11/2001	44	1.32	110.10	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	538811.476
5573540	10/16/2006	44	1.32	110.10	2606	54.4619%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	538811.476
5573540	10/20/2004	43	1.32	108.78	2615	54.6499%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	52357.386
5573540	6/17/2006	42	1.32	107.47	2616	54.6708%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	525903.296
5573540	7/30/2000	42	1.32	107.47	2616	54.6708%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	525903.296
5573540	9/2/1997	42	1.32	107.47	2616	54.6708%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	525903.296
5573540	10/29/1998	42	1.32	107.47	2616	54.6708%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	525903.296
5573540	10/31/2013	42	1.32	107.47	2616	54.6708%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	525903.296
5573540	5/18/2005	41	1.32	106.15	2621	54.7753%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	519449.206
5573540	8/29/2009	41	1.32	106.15	2621	54.7753%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	519449.206

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/15/2003	41	1.32	106.15	2621	54.7753%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	519449.206
5573540	10/1/2015	41	1.32	106.15	2621	54.7753%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	519449.206
5573540	6/4/2005	40	1.32	104.83	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	512995.116
5573540	7/29/1999	40	1.32	104.83	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	512995.116
5573540	7/22/2000	40	1.32	104.83	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	512995.116
5573540	8/28/1998	40	1.32	104.83	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	512995.116
5573540	9/11/2004	40	1.32	104.83	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	512995.116
5573540	9/12/2004	40	1.32	104.83	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	512995.116
5573540	10/25/1995	40	1.32	104.83	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	512995.116
5573540	10/31/2006	40	1.32	104.83	2625	54.8589%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	512995.116
5573540	7/30/2010	39	1.32	103.51	2633	55.0261%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	506541.026
5573540	9/4/2009	39	1.32	103.51	2633	55.0261%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	506541.026
5573540	9/10/2014	39	1.32	103.51	2633	55.0261%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	506541.026
5573540	5/7/2000	38	1.32	102.19	2636	55.0888%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	500086.936
5573540	7/28/2013	38	1.32	102.19	2636	55.0888%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	500086.936
5573540	10/5/1991	38	1.32	102.19	2636	55.0888%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	500086.936
5573540	10/13/2001	38	1.32	102.19	2636	55.0888%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	500086.936
5573540	6/28/1994	37	1.32	100.87	2640	55.1724%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	493632.846
5573540	7/30/1996	37	1.32	100.87	2640	55.1724%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	493632.846
5573540	7/2/2006	37	1.32	100.87	2640	55.1724%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	493632.846
5573540	8/9/1990	37	1.32	100.87	2640	55.1724%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	493632.846
5573540	8/11/1998	37	1.32	100.87	2640	55.1724%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	493632.846
5573540	10/22/1995	37	1.32	100.87	2640	55.1724%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	493632.846
5573540	10/24/1995	37	1.32	100.87	2640	55.1724%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	493632.846
5573540	7/16/1997	36	1.32	99.55	2647	55.3187%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	487178.756
5573540	7/25/2000	36	1.32	99.55	2647	55.3187%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	487178.756
5573540	8/25/2009	36	1.32	99.55	2647	55.3187%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	487178.756
5573540	9/19/2005	36	1.32	99.55	2647	55.3187%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	487178.756
5573540	9/20/2015	36	1.32	99.55	2647	55.3187%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	487178.756
5573540	5/6/2004	35	1.32	98.23	2652	55.4232%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	480724.666
5573540	10/30/1998	35	1.32	98.23	2652	55.4232%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	480724.666
5573540	10/21/2005	35	1.32	98.23	2652	55.4232%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	480724.666
5573540	7/16/1996	34	1.32	96.91	2655	55.4859%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	474270.576
5573540	7/8/2006	34	1.32	96.91	2655	55.4859%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	474270.576
5573540	8/11/2008	34	1.32	96.91	2655	55.4859%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	474270.576
5573540	8/21/2009	34	1.32	96.91	2655	55.4859%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	474270.576
5573540	10/14/2001	34	1.32	96.91	2655	55.4859%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	474270.576
5573540	10/6/2003	34	1.32	96.91	2655	55.4859%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	474270.576
5573540	6/1/2012	33	1.32	95.60	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	467816.486
5573540	7/8/1996	33	1.32	95.60	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	467816.486
5573540	7/9/2006	33	1.32	95.60	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	467816.486
5573540	8/17/1999	33	1.32	95.60	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	467816.486
5573540	8/9/2015	33	1.32	95.60	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	467816.486
5573540	9/16/2003	33	1.32	95.60	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	467816.486
5573540	10/19/1995	33	1.32	95.60	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	467816.486
5573540	10/6/1998	33	1.32	95.60	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	467816.486

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/28/1998	33	1.32	95.60	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	467816.486
5573540	10/8/1999	33	1.32	95.60	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	467816.486
5573540	10/14/2003	33	1.32	95.60	2661	55.6113%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	467816.486
5573540	7/8/2003	32	1.32	94.28	2672	55.8412%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	461362.396
5573540	8/22/2015	32	1.32	94.28	2672	55.8412%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	461362.396
5573540	9/9/1992	32	1.32	94.28	2672	55.8412%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	461362.396
5573540	10/23/1995	32	1.32	94.28	2672	55.8412%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	461362.396
5573540	6/4/2012	31	1.32	92.96	2676	55.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	454908.3061
5573540	7/12/1996	31	1.32	92.96	2676	55.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	454908.3061
5573540	8/13/1998	31	1.32	92.96	2676	55.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	454908.3061
5573540	8/18/2001	31	1.32	92.96	2676	55.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	454908.3061
5573540	8/23/2015	31	1.32	92.96	2676	55.9248%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	454908.3061
5573540	7/11/1995	30	1.32	91.64	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	448454.2161
5573540	7/12/2005	30	1.32	91.64	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	448454.2161
5573540	9/27/2006	30	1.32	91.64	2681	56.0293%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	448454.2161
5573540	10/20/2003	30	1.32	91.64	2681	56.0293%	Fecal_coliform	90	cfu/100mL	200	283.2	201804.3972	448454.2161
5573540	6/9/2005	29	1.32	90.32	2685	56.1129%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	442000.1261
5573540	7/13/1999	29	1.32	90.32	2685	56.1129%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	442000.1261
5573540	7/3/2006	29	1.32	90.32	2685	56.1129%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	442000.1261
5573540	8/24/1995	29	1.32	90.32	2685	56.1129%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	442000.1261
5573540	9/14/1997	29	1.32	90.32	2685	56.1129%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	442000.1261
5573540	9/7/2012	29	1.32	90.32	2685	56.1129%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	442000.1261
5573540	10/18/1995	29	1.32	90.32	2685	56.1129%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	442000.1261
5573540	6/27/2005	28	1.32	89.00	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	435546.0361
5573540	7/28/1998	28	1.32	89.00	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	435546.0361
5573540	7/18/2005	28	1.32	89.00	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	435546.0361
5573540	8/8/1990	28	1.32	89.00	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	435546.0361
5573540	8/29/1998	28	1.32	89.00	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	435546.0361
5573540	8/15/2006	28	1.32	89.00	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	435546.0361
5573540	8/16/2012	28	1.32	89.00	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	435546.0361
5573540	9/17/2003	28	1.32	89.00	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	435546.0361
5573540	9/28/2006	28	1.32	89.00	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	435546.0361
5573540	10/21/1992	28	1.32	89.00	2692	56.2591%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	435546.0361
5573540	5/6/1995	27	1.32	87.68	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	429091.9461
5573540	5/25/2001	27	1.32	87.68	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	429091.9461
5573540	5/26/2001	27	1.32	87.68	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	429091.9461
5573540	5/7/2014	27	1.32	87.68	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	429091.9461
5573540	6/23/1991	27	1.32	87.68	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	429091.9461
5573540	7/27/2004	27	1.32	87.68	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	429091.9461
5573540	8/26/1997	27	1.32	87.68	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	429091.9461
5573540	9/18/2003	27	1.32	87.68	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	429091.9461
5573540	10/17/1995	27	1.32	87.68	2702	56.4681%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	429091.9461
5573540	6/19/2007	26	1.32	86.36	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	422637.8561
5573540	6/5/2012	26	1.32	86.36	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	422637.8561
5573540	7/22/1997	26	1.32	86.36	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	422637.8561
5573540	7/10/2001	26	1.32	86.36	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	422637.8561

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/14/2001	26	1.32	86.36	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	422637.8561
5573540	8/17/1990	26	1.32	86.36	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	422637.8561
5573540	8/29/1993	26	1.32	86.36	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	422637.8561
5573540	8/17/1998	26	1.32	86.36	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	422637.8561
5573540	8/12/2009	26	1.32	86.36	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	422637.8561
5573540	8/2/2010	26	1.32	86.36	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	422637.8561
5573540	9/28/1999	26	1.32	86.36	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	422637.8561
5573540	9/29/1999	26	1.32	86.36	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	422637.8561
5573540	9/19/2003	26	1.32	86.36	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	422637.8561
5573540	10/3/1992	26	1.32	86.36	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	422637.8561
5573540	10/15/1995	26	1.32	86.36	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	422637.8561
5573540	10/16/1995	26	1.32	86.36	2711	56.6562%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	422637.8561
5573540	6/26/1992	25	1.32	85.04	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	416183.7661
5573540	6/10/2005	25	1.32	85.04	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	416183.7661
5573540	6/20/2007	25	1.32	85.04	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	416183.7661
5573540	7/15/1991	25	1.32	85.04	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	416183.7661
5573540	8/15/2008	25	1.32	85.04	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	416183.7661
5573540	8/11/2010	25	1.32	85.04	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	416183.7661
5573540	9/26/2003	25	1.32	85.04	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	416183.7661
5573540	10/14/1995	25	1.32	85.04	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	416183.7661
5573540	10/11/2003	25	1.32	85.04	2727	56.9906%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	416183.7661
5573540	5/21/1992	24	1.32	83.73	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	409729.6761
5573540	6/28/2001	24	1.32	83.73	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	409729.6761
5573540	6/6/2012	24	1.32	83.73	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	409729.6761
5573540	7/17/1996	24	1.32	83.73	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	409729.6761
5573540	8/23/1997	24	1.32	83.73	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	409729.6761
5573540	8/17/2006	24	1.32	83.73	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	409729.6761
5573540	8/26/2009	24	1.32	83.73	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	409729.6761
5573540	9/5/1990	24	1.32	83.73	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	409729.6761
5573540	9/24/2000	24	1.32	83.73	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	409729.6761
5573540	9/20/2003	24	1.32	83.73	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	409729.6761
5573540	9/11/2009	24	1.32	83.73	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	409729.6761
5573540	10/4/1991	24	1.32	83.73	2736	57.1787%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	409729.6761
5573540	5/24/2012	23	1.32	82.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	403275.5861
5573540	5/30/2012	23	1.32	82.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	403275.5861
5573540	5/8/2014	23	1.32	82.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	403275.5861
5573540	6/23/1992	23	1.32	82.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	403275.5861
5573540	6/24/1992	23	1.32	82.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	403275.5861
5573540	7/16/1999	23	1.32	82.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	403275.5861
5573540	7/15/2005	23	1.32	82.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	403275.5861
5573540	8/7/1990	23	1.32	82.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	403275.5861
5573540	8/11/2009	23	1.32	82.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	403275.5861
5573540	8/19/2009	23	1.32	82.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	403275.5861
5573540	8/10/2010	23	1.32	82.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	403275.5861
5573540	8/22/2010	23	1.32	82.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	403275.5861
5573540	9/15/1997	23	1.32	82.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	403275.5861

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/21/2003	23	1.32	82.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	403275.5861
5573540	9/13/2004	23	1.32	82.41	2748	57.4295%	Fecal_coliform	150	cfu/100mL	200	283.2	302456.6896	403275.5861
5573540	10/17/2001	23	1.32	82.41	2748	57.4295%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	403275.5861
5573540	6/25/1992	22	1.32	81.09	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396821.4961
5573540	7/9/1996	22	1.32	81.09	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396821.4961
5573540	7/22/2007	22	1.32	81.09	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396821.4961
5573540	7/29/2013	22	1.32	81.09	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396821.4961
5573540	8/12/2010	22	1.32	81.09	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396821.4961
5573540	8/5/2012	22	1.32	81.09	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396821.4961
5573540	9/22/2003	22	1.32	81.09	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396821.4961
5573540	9/27/2003	22	1.32	81.09	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396821.4961
5573540	10/20/1992	22	1.32	81.09	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396821.4961
5573540	10/13/1995	22	1.32	81.09	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396821.4961
5573540	10/10/2001	22	1.32	81.09	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396821.4961
5573540	10/31/2003	22	1.32	81.09	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396821.4961
5573540	10/22/2012	22	1.32	81.09	2764	57.7638%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	396821.4961
5573540	6/18/1995	21	1.32	79.77	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	390367.4061
5573540	7/20/1999	21	1.32	79.77	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	390367.4061
5573540	7/16/2011	21	1.32	79.77	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	390367.4061
5573540	8/25/1990	21	1.32	79.77	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	390367.4061
5573540	8/5/2004	21	1.32	79.77	2777	58.0355%	Fecal_coliform	270	cfu/100mL	200	283.2	526995.9983	390367.4061
5573540	8/20/2009	21	1.32	79.77	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	390367.4061
5573540	8/28/2009	21	1.32	79.77	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	390367.4061
5573540	8/4/2013	21	1.32	79.77	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	390367.4061
5573540	8/14/2015	21	1.32	79.77	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	390367.4061
5573540	9/27/2011	21	1.32	79.77	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	390367.4061
5573540	10/12/2004	21	1.32	79.77	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	390367.4061
5573540	10/23/2012	21	1.32	79.77	2777	58.0355%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	390367.4061
5573540	7/10/1996	20	1.32	78.45	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	383913.3161
5573540	7/18/1996	20	1.32	78.45	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	383913.3161
5573540	7/10/2007	20	1.32	78.45	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	383913.3161
5573540	8/19/1990	20	1.32	78.45	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	383913.3161
5573540	8/30/1997	20	1.32	78.45	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	383913.3161
5573540	8/13/2009	20	1.32	78.45	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	383913.3161
5573540	8/27/2009	20	1.32	78.45	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	383913.3161
5573540	10/12/1995	20	1.32	78.45	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	383913.3161
5573540	10/21/2003	20	1.32	78.45	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	383913.3161
5573540	10/30/2003	20	1.32	78.45	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	383913.3161
5573540	10/18/2004	20	1.32	78.45	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	383913.3161
5573540	10/7/2005	20	1.32	78.45	2789	58.2863%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	383913.3161
5573540	6/28/2005	19	1.32	77.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	377459.2261
5573540	6/21/2007	19	1.32	77.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	377459.2261
5573540	7/19/1994	19	1.32	77.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	377459.2261
5573540	7/11/1996	19	1.32	77.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	377459.2261
5573540	7/26/2000	19	1.32	77.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	377459.2261
5573540	7/5/2005	19	1.32	77.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	377459.2261

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/20/2006	19	1.32	77.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	377459.2261
5573540	7/13/2011	19	1.32	77.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	377459.2261
5573540	8/16/2006	19	1.32	77.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	377459.2261
5573540	8/21/2010	19	1.32	77.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	377459.2261
5573540	8/21/2015	19	1.32	77.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	377459.2261
5573540	9/30/1992	19	1.32	77.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	377459.2261
5573540	9/23/2003	19	1.32	77.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	377459.2261
5573540	9/29/2006	19	1.32	77.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	377459.2261
5573540	10/2/1992	19	1.32	77.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	377459.2261
5573540	10/4/1992	19	1.32	77.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	377459.2261
5573540	10/11/1995	19	1.32	77.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	377459.2261
5573540	10/26/2003	19	1.32	77.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	377459.2261
5573540	10/28/2003	19	1.32	77.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	377459.2261
5573540	10/29/2003	19	1.32	77.13	2801	58.5371%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	377459.2261
5573540	6/3/2012	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	7/28/1995	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	7/19/1996	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	7/31/2010	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	8/20/1998	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	8/24/1999	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	8/18/2000	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	8/2/2001	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	8/29/2003	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	8/6/2004	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	8/20/2004	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	8/9/2010	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	8/13/2010	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	8/23/2010	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	8/24/2015	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	9/1/1992	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	9/24/2003	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	9/28/2003	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	9/22/2010	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	10/7/1995	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	10/9/1995	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	10/10/1995	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	10/15/2001	18	1.32	75.81	2821	58.9551%	Fecal_coliform	1020	cfu/100mL	200	283.2	1892126.194	371005.1361
5573540	10/22/2001	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	10/27/2003	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	10/31/2005	18	1.32	75.81	2821	58.9551%	Fecal_coliform	160	cfu/100mL	200	283.2	296804.1089	371005.1361
5573540	10/14/2012	18	1.32	75.81	2821	58.9551%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	371005.1361
5573540	6/15/1991	17	1.32	74.49	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	364551.0461
5573540	7/20/1996	17	1.32	74.49	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	364551.0461
5573540	7/31/2000	17	1.32	74.49	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	364551.0461
5573540	7/26/2006	17	1.32	74.49	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	364551.0461
5573540	7/12/2011	17	1.32	74.49	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	364551.0461

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/29/1991	17	1.32	74.49	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	364551.0461
5573540	8/17/2000	17	1.32	74.49	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	364551.0461
5573540	8/12/2005	17	1.32	74.49	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	364551.0461
5573540	9/1/2001	17	1.32	74.49	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	364551.0461
5573540	9/3/2002	17	1.32	74.49	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	364551.0461
5573540	9/3/2008	17	1.32	74.49	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	364551.0461
5573540	10/5/1992	17	1.32	74.49	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	364551.0461
5573540	10/6/1995	17	1.32	74.49	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	364551.0461
5573540	10/8/1995	17	1.32	74.49	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	364551.0461
5573540	10/12/2003	17	1.32	74.49	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	364551.0461
5573540	10/22/2003	17	1.32	74.49	2848	59.5193%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	364551.0461
5573540	5/29/2012	16	1.32	73.18	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358096.9561
5573540	6/11/1991	16	1.32	73.18	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358096.9561
5573540	7/28/2004	16	1.32	73.18	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358096.9561
5573540	7/11/2005	16	1.32	73.18	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358096.9561
5573540	7/10/2006	16	1.32	73.18	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358096.9561
5573540	7/27/2007	16	1.32	73.18	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358096.9561
5573540	8/27/1990	16	1.32	73.18	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358096.9561
5573540	8/21/1992	16	1.32	73.18	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358096.9561
5573540	8/18/1999	16	1.32	73.18	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358096.9561
5573540	8/1/2004	16	1.32	73.18	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358096.9561
5573540	8/2/2004	16	1.32	73.18	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358096.9561
5573540	8/24/2004	16	1.32	73.18	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358096.9561
5573540	8/9/2008	16	1.32	73.18	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358096.9561
5573540	9/6/1990	16	1.32	73.18	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358096.9561
5573540	9/16/1997	16	1.32	73.18	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358096.9561
5573540	9/6/2001	16	1.32	73.18	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358096.9561
5573540	9/26/2005	16	1.32	73.18	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358096.9561
5573540	9/9/2011	16	1.32	73.18	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358096.9561
5573540	10/19/2002	16	1.32	73.18	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358096.9561
5573540	10/25/2003	16	1.32	73.18	2864	59.8537%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	358096.9561
5573540	6/15/2006	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	7/14/1999	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	7/30/1999	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	7/27/2000	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	7/3/2001	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	7/29/2001	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	7/4/2005	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	7/10/2005	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	8/23/1999	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	8/9/2000	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	8/23/2001	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	8/1/2010	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	8/16/2010	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	8/8/2015	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	9/25/2000	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/25/2003	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	9/29/2003	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	9/30/2003	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	9/14/2004	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	9/21/2012	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	10/17/1992	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	10/19/1998	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	10/20/2000	15	1.32	71.86	2884	60.2717%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	351642.8661
5573540	6/17/1992	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	6/29/1994	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	6/29/2005	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	6/22/2006	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	7/15/1999	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	7/2/2003	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	7/30/2004	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	7/6/2005	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	7/8/2005	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	7/9/2005	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	7/19/2005	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	8/26/1990	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	8/6/1993	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	8/3/2004	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	8/4/2004	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	8/19/2005	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	9/19/2004	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	9/12/2009	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	9/2/2012	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	10/19/1992	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	10/20/1998	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	10/21/1998	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	10/9/1999	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	10/5/2001	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	10/13/2003	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	10/23/2003	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	10/13/2004	14	1.32	70.54	2907	60.7524%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	345188.7762
5573540	5/1/2012	13	1.32	69.22	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	338734.6862
5573540	5/15/2012	13	1.32	69.22	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	338734.6862
5573540	6/16/2006	13	1.32	69.22	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	338734.6862
5573540	6/18/2007	13	1.32	69.22	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	338734.6862
5573540	7/23/1997	13	1.32	69.22	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	338734.6862
5573540	7/7/2005	13	1.32	69.22	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	338734.6862
5573540	7/13/2005	13	1.32	69.22	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	338734.6862
5573540	8/2/2000	13	1.32	69.22	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	338734.6862
5573540	8/9/2004	13	1.32	69.22	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	338734.6862
5573540	8/7/2015	13	1.32	69.22	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	338734.6862
5573540	9/18/2004	13	1.32	69.22	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	338734.6862

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/20/2004	13	1.32	69.22	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	338734.6862
5573540	9/30/2006	13	1.32	69.22	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	338734.6862
5573540	10/23/2001	13	1.32	69.22	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	338734.6862
5573540	10/15/2003	13	1.32	69.22	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	338734.6862
5573540	10/24/2003	13	1.32	69.22	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	338734.6862
5573540	10/6/2009	13	1.32	69.22	2934	61.3166%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	338734.6862
5573540	5/30/1992	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	6/29/2001	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	6/30/2005	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	6/2/2012	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	7/17/1997	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	7/21/1999	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	7/28/2000	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	7/7/2001	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	7/3/2005	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	7/16/2005	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	8/28/1990	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	8/16/1995	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	8/24/1997	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	8/24/2001	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	8/23/2002	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	9/15/2004	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	9/16/2004	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	9/7/2010	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	10/23/1996	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	10/31/1998	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	10/9/2000	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	10/1/2003	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	10/8/2004	12	1.32	67.90	2951	61.6719%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	332280.5962
5573540	6/7/2012	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	6/10/2012	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	7/31/1996	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	7/13/2001	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	7/14/2005	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	7/21/2006	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	8/12/1999	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	8/3/2000	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	8/19/2001	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	8/12/2003	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	8/7/2004	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	8/10/2008	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	8/14/2009	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	8/25/2015	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	9/6/1997	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	9/8/1997	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	9/17/2004	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/15/2005	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	9/13/2009	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	9/25/2012	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	10/6/1992	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	10/4/1995	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	10/22/1996	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	10/18/1998	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	10/27/1998	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	10/18/2002	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	10/23/2002	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	10/16/2003	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	10/12/2007	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	10/18/2012	11	1.32	66.58	2974	62.1526%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	325826.5062
5573540	5/20/1992	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	5/6/2000	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	7/17/2007	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	8/22/1992	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	8/23/1992	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	8/24/1992	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	8/25/1992	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	8/26/1992	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	8/27/1992	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	8/28/1992	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	8/17/1997	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	8/8/2004	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	8/10/2004	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	8/16/2008	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	8/19/2015	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	8/20/2015	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	9/3/1991	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	9/2/2001	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	10/3/1995	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	10/5/1995	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	10/22/1998	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	10/24/2002	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	10/2/2003	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	10/11/2006	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	10/15/2007	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	10/16/2007	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	10/3/2013	10	1.32	65.26	3004	62.7795%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	319372.4162
5573540	6/12/2007	9.9	1.32	65.13	3031	63.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	318727.0072
5573540	7/1/2005	9.9	1.32	65.13	3031	63.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	318727.0072
5573540	8/18/1990	9.9	1.32	65.13	3031	63.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	318727.0072
5573540	9/14/2009	9.9	1.32	65.13	3031	63.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	318727.0072
5573540	10/14/2004	9.9	1.32	65.13	3031	63.3438%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	318727.0072
5573540	6/30/2001	9.8	1.32	65.00	3036	63.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	318081.5982

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/26/2011	9.8	1.32	65.00	3036	63.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	318081.5982
5573540	10/17/2012	9.8	1.32	65.00	3036	63.4483%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	318081.5982
5573540	7/31/2004	9.7	1.32	64.87	3039	63.5110%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	317436.1892
5573540	7/2/2005	9.7	1.32	64.87	3039	63.5110%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	317436.1892
5573540	8/17/2014	9.7	1.32	64.87	3039	63.5110%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	317436.1892
5573540	9/28/2001	9.7	1.32	64.87	3039	63.5110%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	317436.1892
5573540	8/22/2014	9.6	1.32	64.73	3043	63.5946%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316790.7802
5573540	10/17/2003	9.6	1.32	64.73	3043	63.5946%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316790.7802
5573540	7/28/2007	9.5	1.32	64.60	3045	63.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	316145.3712
5573540	6/24/1991	9.4	1.32	64.47	3046	63.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	315499.9622
5573540	7/1/2001	9.4	1.32	64.47	3046	63.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	315499.9622
5573540	9/9/2001	9.4	1.32	64.47	3046	63.6573%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	315499.9622
5573540	5/3/2012	9.3	1.32	64.34	3049	63.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	314854.5532
5573540	8/30/1991	9.3	1.32	64.34	3049	63.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	314854.5532
5573540	8/26/2015	9.3	1.32	64.34	3049	63.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	314854.5532
5573540	9/8/2012	9.3	1.32	64.34	3049	63.7200%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	314854.5532
5573540	7/2/2001	9.2	1.32	64.21	3053	63.8036%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	314209.1442
5573540	7/10/2002	9.2	1.32	64.21	3053	63.8036%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	314209.1442
5573540	10/5/2003	9.2	1.32	64.21	3053	63.8036%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	314209.1442
5573540	6/11/2012	9.1	1.32	64.08	3056	63.8662%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	313563.7352
5573540	7/15/2001	9.1	1.32	64.08	3056	63.8662%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	313563.7352
5573540	8/21/2014	9.1	1.32	64.08	3056	63.8662%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	313563.7352
5573540	9/21/2004	9.1	1.32	64.08	3056	63.8662%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	313563.7352
5573540	10/5/1998	9.1	1.32	64.08	3056	63.8662%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	313563.7352
5573540	10/29/2002	9	1.32	63.94	3061	63.9707%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	312918.3262
5573540	10/18/2003	9	1.32	63.94	3061	63.9707%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	312918.3262
5573540	9/6/1994	8.9	1.32	63.81	3063	64.0125%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	312272.9172
5573540	8/19/1999	8.8	1.32	63.68	3064	64.0334%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311627.5082
5573540	10/3/2003	8.8	1.32	63.68	3064	64.0334%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	311627.5082
5573540	8/9/1997	8.7	1.32	63.55	3066	64.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	310982.0992
5573540	10/7/1998	8.7	1.32	63.55	3066	64.0752%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	310982.0992
5573540	7/29/2007	8.6	1.32	63.42	3068	64.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	310336.6902
5573540	8/25/2004	8.6	1.32	63.42	3068	64.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	310336.6902
5573540	8/18/2015	8.6	1.32	63.42	3068	64.1170%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	310336.6902
5573540	7/24/1997	8.5	1.32	63.28	3071	64.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	309691.2812
5573540	8/19/2002	8.5	1.32	63.28	3071	64.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	309691.2812
5573540	9/26/1996	8.5	1.32	63.28	3071	64.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	309691.2812
5573540	9/8/2007	8.5	1.32	63.28	3071	64.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	309691.2812
5573540	9/9/2014	8.5	1.32	63.28	3071	64.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	309691.2812
5573540	10/9/2004	8.5	1.32	63.28	3071	64.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	309691.2812
5573540	10/15/2004	8.5	1.32	63.28	3071	64.1797%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	309691.2812
5573540	7/27/2002	8.4	1.32	63.15	3078	64.3260%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	309045.8722
5573540	8/18/2004	8.4	1.32	63.15	3078	64.3260%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	309045.8722
5573540	8/22/2008	8.4	1.32	63.15	3078	64.3260%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	309045.8722
5573540	10/19/2003	8.4	1.32	63.15	3078	64.3260%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	309045.8722
5573540	7/16/2002	8.3	1.32	63.02	3082	64.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	308400.4632

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	7/14/2012	8.3	1.32	63.02	3082	64.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	308400.4632
5573540	9/9/1997	8.3	1.32	63.02	3082	64.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	308400.4632
5573540	10/6/2001	8.3	1.32	63.02	3082	64.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	308400.4632
5573540	10/4/2003	8.3	1.32	63.02	3082	64.4096%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	308400.4632
5573540	8/10/1991	8.2	1.32	62.89	3087	64.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	307755.0542
5573540	9/7/2001	8.2	1.32	62.89	3087	64.5141%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	307755.0542
5573540	6/17/2007	8.1	1.32	62.76	3089	64.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	307109.6452
5573540	9/14/2005	8.1	1.32	62.76	3089	64.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	307109.6452
5573540	10/25/2002	8.1	1.32	62.76	3089	64.5559%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	307109.6452
5573540	7/29/2004	8	1.32	62.62	3092	64.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	306464.2362
5573540	7/26/2005	8	1.32	62.62	3092	64.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	306464.2362
5573540	8/20/2010	8	1.32	62.62	3092	64.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	306464.2362
5573540	9/4/2011	8	1.32	62.62	3092	64.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	306464.2362
5573540	10/30/1991	8	1.32	62.62	3092	64.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	306464.2362
5573540	10/23/1998	8	1.32	62.62	3092	64.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	306464.2362
5573540	10/5/2012	8	1.32	62.62	3092	64.6186%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	306464.2362
5573540	7/11/2007	7.9	1.32	62.49	3099	64.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305818.8272
5573540	9/1/2010	7.9	1.32	62.49	3099	64.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305818.8272
5573540	6/19/1995	7.8	1.32	62.36	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305173.4182
5573540	7/20/1994	7.8	1.32	62.36	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305173.4182
5573540	7/22/1999	7.8	1.32	62.36	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305173.4182
5573540	7/31/1999	7.8	1.32	62.36	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305173.4182
5573540	7/4/2001	7.8	1.32	62.36	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305173.4182
5573540	9/30/2004	7.8	1.32	62.36	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305173.4182
5573540	9/28/2005	7.8	1.32	62.36	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305173.4182
5573540	10/6/2004	7.8	1.32	62.36	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305173.4182
5573540	10/7/2004	7.8	1.32	62.36	3101	64.8067%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	305173.4182
5573540	6/17/2012	7.7	1.32	62.23	3110	64.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	304528.0092
5573540	9/3/2011	7.7	1.32	62.23	3110	64.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	304528.0092
5573540	10/5/2004	7.7	1.32	62.23	3110	64.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	304528.0092
5573540	10/18/2007	7.7	1.32	62.23	3110	64.9948%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	304528.0092
5573540	7/18/1997	7.6	1.32	62.10	3114	65.0784%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	303882.6002
5573540	7/25/1997	7.6	1.32	62.10	3114	65.0784%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	303882.6002
5573540	8/27/1997	7.6	1.32	62.10	3114	65.0784%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	303882.6002
5573540	10/13/2011	7.6	1.32	62.10	3114	65.0784%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	303882.6002
5573540	7/11/2001	7.5	1.32	61.96	3118	65.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	303237.1912
5573540	7/20/2005	7.5	1.32	61.96	3118	65.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	303237.1912
5573540	8/27/2015	7.5	1.32	61.96	3118	65.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	303237.1912
5573540	8/28/2015	7.5	1.32	61.96	3118	65.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	303237.1912
5573540	9/22/2009	7.5	1.32	61.96	3118	65.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	303237.1912
5573540	10/4/2004	7.5	1.32	61.96	3118	65.1620%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	303237.1912
5573540	5/19/1992	7.4	1.32	61.83	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	302591.7822
5573540	7/8/2001	7.4	1.32	61.83	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	302591.7822
5573540	8/2/1997	7.4	1.32	61.83	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	302591.7822
5573540	10/6/1991	7.4	1.32	61.83	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	302591.7822
5573540	10/18/1996	7.4	1.32	61.83	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	302591.7822

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/26/1998	7.4	1.32	61.83	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	302591.7822
5573540	10/7/2001	7.4	1.32	61.83	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	302591.7822
5573540	10/1/2004	7.4	1.32	61.83	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	302591.7822
5573540	10/11/2004	7.4	1.32	61.83	3124	65.2874%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	302591.7822
5573540	8/17/2015	7.3	1.32	61.70	3133	65.4754%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	301946.3732
5573540	10/2/2004	7.3	1.32	61.70	3133	65.4754%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	301946.3732
5573540	10/3/2004	7.3	1.32	61.70	3133	65.4754%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	301946.3732
5573540	8/1/2000	7.2	1.32	61.57	3136	65.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	301300.9642
5573540	10/14/1997	7.2	1.32	61.57	3136	65.5381%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	301300.9642
5573540	9/30/1999	7.1	1.32	61.44	3138	65.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	300655.5552
5573540	9/6/2014	7.1	1.32	61.44	3138	65.5799%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	300655.5552
5573540	7/9/2002	7	1.32	61.31	3140	65.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	300010.1462
5573540	7/17/2005	7	1.32	61.31	3140	65.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	300010.1462
5573540	8/20/1997	7	1.32	61.31	3140	65.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	300010.1462
5573540	10/23/2000	7	1.32	61.31	3140	65.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	300010.1462
5573540	10/10/2004	7	1.32	61.31	3140	65.6217%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	300010.1462
5573540	7/18/2001	6.9	1.32	61.17	3145	65.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	299364.7372
5573540	9/21/1991	6.9	1.32	61.17	3145	65.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	299364.7372
5573540	9/29/2004	6.9	1.32	61.17	3145	65.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	299364.7372
5573540	10/24/1998	6.9	1.32	61.17	3145	65.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	299364.7372
5573540	10/2/2009	6.9	1.32	61.17	3145	65.7262%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	299364.7372
5573540	7/28/1997	6.8	1.32	61.04	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298719.3282
5573540	7/30/2007	6.8	1.32	61.04	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298719.3282
5573540	8/3/1997	6.8	1.32	61.04	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298719.3282
5573540	8/20/1999	6.8	1.32	61.04	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298719.3282
5573540	9/22/2004	6.8	1.32	61.04	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298719.3282
5573540	10/15/1997	6.8	1.32	61.04	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298719.3282
5573540	10/19/2000	6.8	1.32	61.04	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298719.3282
5573540	10/9/2001	6.8	1.32	61.04	3150	65.8307%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298719.3282
5573540	6/16/1991	6.7	1.32	60.91	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298073.9192
5573540	7/21/1994	6.7	1.32	60.91	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298073.9192
5573540	7/26/1997	6.7	1.32	60.91	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298073.9192
5573540	7/27/1997	6.7	1.32	60.91	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298073.9192
5573540	8/31/1997	6.7	1.32	60.91	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298073.9192
5573540	9/18/2001	6.7	1.32	60.91	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298073.9192
5573540	9/24/2005	6.7	1.32	60.91	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298073.9192
5573540	9/20/2009	6.7	1.32	60.91	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298073.9192
5573540	10/26/1991	6.7	1.32	60.91	3158	65.9979%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	298073.9192
5573540	9/23/2004	6.6	1.32	60.78	3167	66.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	297428.5102
5573540	10/26/1997	6.6	1.32	60.78	3167	66.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	297428.5102
5573540	10/25/1998	6.6	1.32	60.78	3167	66.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	297428.5102
5573540	10/18/2011	6.6	1.32	60.78	3167	66.1860%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	297428.5102
5573540	8/16/1990	6.5	1.32	60.65	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	296783.1012
5573540	8/17/2010	6.5	1.32	60.65	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	296783.1012
5573540	8/18/2010	6.5	1.32	60.65	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	296783.1012
5573540	9/5/1994	6.5	1.32	60.65	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	296783.1012

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/11/2015	6.5	1.32	60.65	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	296783.1012
5573540	10/31/1991	6.5	1.32	60.65	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	296783.1012
5573540	10/13/1997	6.5	1.32	60.65	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	296783.1012
5573540	10/27/1997	6.5	1.32	60.65	3171	66.2696%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	296783.1012
5573540	10/4/2000	6.5	1.32	60.65	3171	66.2696%	Fecal_coliform	220	cfu/100mL	200	283.2	326461.4113	296783.1012
5573540	7/11/1991	6.4	1.32	60.51	3180	66.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	296137.6922
5573540	8/1/1997	6.4	1.32	60.51	3180	66.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	296137.6922
5573540	9/20/2005	6.4	1.32	60.51	3180	66.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	296137.6922
5573540	10/16/1997	6.4	1.32	60.51	3180	66.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	296137.6922
5573540	10/8/2001	6.4	1.32	60.51	3180	66.4577%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	296137.6922
5573540	8/10/1993	6.3	1.32	60.38	3185	66.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	295492.2832
5573540	8/10/2000	6.3	1.32	60.38	3185	66.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	295492.2832
5573540	9/17/1997	6.3	1.32	60.38	3185	66.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	295492.2832
5573540	9/19/1997	6.3	1.32	60.38	3185	66.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	295492.2832
5573540	9/3/2001	6.3	1.32	60.38	3185	66.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	295492.2832
5573540	10/27/1991	6.3	1.32	60.38	3185	66.5622%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	295492.2832
5573540	8/17/2004	6.2	1.32	60.25	3191	66.6876%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294846.8742
5573540	8/19/2004	6.2	1.32	60.25	3191	66.6876%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294846.8742
5573540	10/17/1997	6.2	1.32	60.25	3191	66.6876%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294846.8742
5573540	6/13/2007	6.1	1.32	60.12	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294201.4652
5573540	7/16/2001	6.1	1.32	60.12	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294201.4652
5573540	7/28/2001	6.1	1.32	60.12	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294201.4652
5573540	8/25/1995	6.1	1.32	60.12	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294201.4652
5573540	8/19/1997	6.1	1.32	60.12	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294201.4652
5573540	8/21/1999	6.1	1.32	60.12	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294201.4652
5573540	8/21/2004	6.1	1.32	60.12	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294201.4652
5573540	8/15/2009	6.1	1.32	60.12	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294201.4652
5573540	9/24/2004	6.1	1.32	60.12	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294201.4652
5573540	10/18/1997	6.1	1.32	60.12	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294201.4652
5573540	10/13/2000	6.1	1.32	60.12	3194	66.7503%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	294201.4652
5573540	6/8/2012	6	1.32	59.99	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293556.0562
5573540	8/25/1999	6	1.32	59.99	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293556.0562
5573540	8/11/2004	6	1.32	59.99	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293556.0562
5573540	8/17/2008	6	1.32	59.99	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293556.0562
5573540	8/16/2009	6	1.32	59.99	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293556.0562
5573540	8/15/2014	6	1.32	59.99	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293556.0562
5573540	9/7/1990	6	1.32	59.99	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293556.0562
5573540	10/19/1997	6	1.32	59.99	3205	66.9801%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	293556.0562
5573540	6/20/1991	5.9	1.32	59.85	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292910.6472
5573540	7/31/2007	5.9	1.32	59.85	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292910.6472
5573540	8/7/1999	5.9	1.32	59.85	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292910.6472
5573540	8/22/1999	5.9	1.32	59.85	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292910.6472
5573540	8/23/2004	5.9	1.32	59.85	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292910.6472
5573540	8/19/2010	5.9	1.32	59.85	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292910.6472
5573540	8/14/2014	5.9	1.32	59.85	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292910.6472
5573540	9/19/2002	5.9	1.32	59.85	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292910.6472

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/25/2004	5.9	1.32	59.85	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292910.6472
5573540	9/15/2009	5.9	1.32	59.85	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292910.6472
5573540	10/24/2012	5.9	1.32	59.85	3213	67.1473%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292910.6472
5573540	7/31/1997	5.8	1.32	59.72	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292265.2382
5573540	7/21/2007	5.8	1.32	59.72	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292265.2382
5573540	8/18/1997	5.8	1.32	59.72	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292265.2382
5573540	8/12/1998	5.8	1.32	59.72	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292265.2382
5573540	8/17/2009	5.8	1.32	59.72	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292265.2382
5573540	9/20/1997	5.8	1.32	59.72	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292265.2382
5573540	9/28/2004	5.8	1.32	59.72	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292265.2382
5573540	10/4/1990	5.8	1.32	59.72	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292265.2382
5573540	10/13/2012	5.8	1.32	59.72	3224	67.3772%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	292265.2382
5573540	6/16/2007	5.7	1.32	59.59	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	291619.8292
5573540	7/29/1997	5.7	1.32	59.59	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	291619.8292
5573540	7/23/1999	5.7	1.32	59.59	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	291619.8292
5573540	8/10/1997	5.7	1.32	59.59	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	291619.8292
5573540	8/1/1999	5.7	1.32	59.59	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	291619.8292
5573540	8/16/2004	5.7	1.32	59.59	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	291619.8292
5573540	8/18/2008	5.7	1.32	59.59	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	291619.8292
5573540	8/16/2014	5.7	1.32	59.59	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	291619.8292
5573540	9/26/2004	5.7	1.32	59.59	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	291619.8292
5573540	9/27/2004	5.7	1.32	59.59	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	291619.8292
5573540	9/18/2011	5.7	1.32	59.59	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	291619.8292
5573540	10/20/1997	5.7	1.32	59.59	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	291619.8292
5573540	10/4/2002	5.7	1.32	59.59	3233	67.5653%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	291619.8292
5573540	6/12/1991	5.6	1.32	59.46	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290974.4202
5573540	7/12/2001	5.6	1.32	59.46	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290974.4202
5573540	9/25/1992	5.6	1.32	59.46	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290974.4202
5573540	9/29/2001	5.6	1.32	59.46	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290974.4202
5573540	9/28/2011	5.6	1.32	59.46	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290974.4202
5573540	10/3/1990	5.6	1.32	59.46	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290974.4202
5573540	10/21/1997	5.6	1.32	59.46	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290974.4202
5573540	10/1/2009	5.6	1.32	59.46	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290974.4202
5573540	10/2/2015	5.6	1.32	59.46	3246	67.8370%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290974.4202
5573540	7/29/1998	5.5	1.32	59.33	3255	68.0251%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290329.0112
5573540	8/4/2000	5.5	1.32	59.33	3255	68.0251%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290329.0112
5573540	9/27/1996	5.5	1.32	59.33	3255	68.0251%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290329.0112
5573540	9/4/2001	5.5	1.32	59.33	3255	68.0251%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290329.0112
5573540	9/17/2009	5.5	1.32	59.33	3255	68.0251%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290329.0112
5573540	9/21/2009	5.5	1.32	59.33	3255	68.0251%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290329.0112
5573540	10/26/2012	5.5	1.32	59.33	3255	68.0251%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	290329.0112
5573540	7/30/1997	5.4	1.32	59.20	3262	68.1714%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289683.6022
5573540	7/22/2006	5.4	1.32	59.20	3262	68.1714%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289683.6022
5573540	8/16/2001	5.4	1.32	59.20	3262	68.1714%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289683.6022
5573540	8/13/2005	5.4	1.32	59.20	3262	68.1714%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289683.6022
5573540	9/12/2000	5.4	1.32	59.20	3262	68.1714%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289683.6022

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/19/2011	5.4	1.32	59.20	3262	68.1714%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289683.6022
5573540	10/26/2010	5.4	1.32	59.20	3262	68.1714%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289683.6022
5573540	9/22/2012	5.3	1.32	59.06	3269	68.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289038.1932
5573540	10/22/1997	5.3	1.32	59.06	3269	68.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289038.1932
5573540	10/23/1997	5.3	1.32	59.06	3269	68.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	289038.1932
5573540	6/14/2007	5.2	1.32	58.93	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288392.7842
5573540	6/9/2012	5.2	1.32	58.93	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288392.7842
5573540	7/21/2005	5.2	1.32	58.93	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288392.7842
5573540	8/31/1991	5.2	1.32	58.93	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288392.7842
5573540	8/3/2001	5.2	1.32	58.93	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288392.7842
5573540	8/25/2001	5.2	1.32	58.93	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288392.7842
5573540	10/19/1996	5.2	1.32	58.93	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288392.7842
5573540	10/24/1997	5.2	1.32	58.93	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288392.7842
5573540	10/3/1999	5.2	1.32	58.93	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288392.7842
5573540	10/10/1999	5.2	1.32	58.93	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288392.7842
5573540	10/15/2012	5.2	1.32	58.93	3272	68.3804%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	288392.7842
5573540	9/26/2000	5.1	1.32	58.80	3283	68.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	287747.3752
5573540	10/29/1991	5.1	1.32	58.80	3283	68.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	287747.3752
5573540	10/28/1997	5.1	1.32	58.80	3283	68.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	287747.3752
5573540	10/10/2006	5.1	1.32	58.80	3283	68.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	287747.3752
5573540	10/3/2015	5.1	1.32	58.80	3283	68.6102%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	287747.3752
5573540	8/16/2002	5	1.32	58.67	3288	68.7147%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	287101.9662
5573540	10/25/1997	5	1.32	58.67	3288	68.7147%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	287101.9662
5573540	10/7/2009	5	1.32	58.67	3288	68.7147%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	287101.9662
5573540	6/15/2007	4.9	1.32	58.54	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286456.5572
5573540	7/2/1994	4.9	1.32	58.54	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286456.5572
5573540	7/24/1999	4.9	1.32	58.54	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286456.5572
5573540	7/17/2001	4.9	1.32	58.54	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286456.5572
5573540	8/21/1998	4.9	1.32	58.54	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286456.5572
5573540	8/12/2004	4.9	1.32	58.54	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286456.5572
5573540	8/15/2004	4.9	1.32	58.54	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286456.5572
5573540	8/18/2009	4.9	1.32	58.54	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286456.5572
5573540	9/10/2000	4.9	1.32	58.54	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286456.5572
5573540	10/28/1991	4.9	1.32	58.54	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286456.5572
5573540	10/10/1997	4.9	1.32	58.54	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286456.5572
5573540	10/11/1997	4.9	1.32	58.54	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286456.5572
5573540	10/12/1997	4.9	1.32	58.54	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286456.5572
5573540	10/16/2004	4.9	1.32	58.54	3291	68.7774%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	286456.5572
5573540	8/22/2004	4.8	1.32	58.40	3305	69.0700%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285811.1482
5573540	8/1/2007	4.8	1.32	58.40	3305	69.0700%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285811.1482
5573540	9/26/1992	4.8	1.32	58.40	3305	69.0700%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285811.1482
5573540	9/18/2009	4.8	1.32	58.40	3305	69.0700%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285811.1482
5573540	7/26/1999	4.7	1.32	58.27	3309	69.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285165.7392
5573540	7/18/2007	4.7	1.32	58.27	3309	69.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285165.7392
5573540	8/2/1999	4.7	1.32	58.27	3309	69.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285165.7392
5573540	9/7/1997	4.7	1.32	58.27	3309	69.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285165.7392

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/19/2009	4.7	1.32	58.27	3309	69.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285165.7392
5573540	10/3/2007	4.7	1.32	58.27	3309	69.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285165.7392
5573540	10/12/2011	4.7	1.32	58.27	3309	69.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	285165.7392
5573540	5/27/2012	4.6	1.32	58.14	3316	69.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284520.3302
5573540	7/19/2001	4.6	1.32	58.14	3316	69.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284520.3302
5573540	8/4/1997	4.6	1.32	58.14	3316	69.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284520.3302
5573540	9/23/2009	4.6	1.32	58.14	3316	69.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284520.3302
5573540	10/17/1996	4.6	1.32	58.14	3316	69.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284520.3302
5573540	10/1/2006	4.6	1.32	58.14	3316	69.2999%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	284520.3302
5573540	7/25/1999	4.5	1.32	58.01	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283874.9212
5573540	7/11/2002	4.5	1.32	58.01	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283874.9212
5573540	7/20/2007	4.5	1.32	58.01	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283874.9212
5573540	8/11/1997	4.5	1.32	58.01	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283874.9212
5573540	8/13/2004	4.5	1.32	58.01	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283874.9212
5573540	8/14/2004	4.5	1.32	58.01	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283874.9212
5573540	8/29/2015	4.5	1.32	58.01	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283874.9212
5573540	9/3/1992	4.5	1.32	58.01	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283874.9212
5573540	9/14/1992	4.5	1.32	58.01	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283874.9212
5573540	9/4/2002	4.5	1.32	58.01	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283874.9212
5573540	9/10/2011	4.5	1.32	58.01	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283874.9212
5573540	9/14/2011	4.5	1.32	58.01	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283874.9212
5573540	10/9/1997	4.5	1.32	58.01	3322	69.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283874.9212
5573540	8/11/2000	4.4	1.32	57.88	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283229.5122
5573540	8/23/2000	4.4	1.32	57.88	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283229.5122
5573540	8/4/2001	4.4	1.32	57.88	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283229.5122
5573540	8/19/2008	4.4	1.32	57.88	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283229.5122
5573540	9/5/2001	4.4	1.32	57.88	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283229.5122
5573540	10/29/1997	4.4	1.32	57.88	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283229.5122
5573540	10/17/2004	4.4	1.32	57.88	3335	69.6970%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	283229.5122
5573540	7/16/1991	4.3	1.32	57.74	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282584.1032
5573540	7/20/2001	4.3	1.32	57.74	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282584.1032
5573540	7/26/2001	4.3	1.32	57.74	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282584.1032
5573540	7/12/2007	4.3	1.32	57.74	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282584.1032
5573540	8/8/1999	4.3	1.32	57.74	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282584.1032
5573540	8/17/2012	4.3	1.32	57.74	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282584.1032
5573540	9/25/2009	4.3	1.32	57.74	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282584.1032
5573540	9/7/2014	4.3	1.32	57.74	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282584.1032
5573540	10/24/1996	4.3	1.32	57.74	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282584.1032
5573540	10/30/2002	4.3	1.32	57.74	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282584.1032
5573540	10/31/2002	4.3	1.32	57.74	3342	69.8433%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	282584.1032
5573540	6/20/1995	4.2	1.32	57.61	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281938.6942
5573540	6/13/2012	4.2	1.32	57.61	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281938.6942
5573540	7/17/2011	4.2	1.32	57.61	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281938.6942
5573540	7/24/2011	4.2	1.32	57.61	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281938.6942
5573540	8/15/1997	4.2	1.32	57.61	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281938.6942
5573540	8/3/1999	4.2	1.32	57.61	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281938.6942

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/27/2003	4.2	1.32	57.61	3353	70.0731%	Fecal_coliform	1	cfu/100mL	200	283.2	1409.693471	281938.6942
5573540	8/15/2011	4.2	1.32	57.61	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281938.6942
5573540	8/31/2011	4.2	1.32	57.61	3353	70.0731%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281938.6942
5573540	5/28/2012	4.1	1.32	57.48	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281293.2852
5573540	7/25/2001	4.1	1.32	57.48	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281293.2852
5573540	7/22/2005	4.1	1.32	57.48	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281293.2852
5573540	7/25/2006	4.1	1.32	57.48	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281293.2852
5573540	7/19/2007	4.1	1.32	57.48	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281293.2852
5573540	8/14/1998	4.1	1.32	57.48	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281293.2852
5573540	8/27/1999	4.1	1.32	57.48	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281293.2852
5573540	8/1/2001	4.1	1.32	57.48	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281293.2852
5573540	8/26/2003	4.1	1.32	57.48	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281293.2852
5573540	8/16/2011	4.1	1.32	57.48	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281293.2852
5573540	9/8/1990	4.1	1.32	57.48	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281293.2852
5573540	9/4/1991	4.1	1.32	57.48	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281293.2852
5573540	9/26/2009	4.1	1.32	57.48	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281293.2852
5573540	10/5/1990	4.1	1.32	57.48	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281293.2852
5573540	10/20/1996	4.1	1.32	57.48	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281293.2852
5573540	10/4/1999	4.1	1.32	57.48	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281293.2852
5573540	10/22/2005	4.1	1.32	57.48	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281293.2852
5573540	10/7/2006	4.1	1.32	57.48	3362	70.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	281293.2852
5573540	7/21/2001	4	1.32	57.35	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280647.8762
5573540	7/22/2001	4	1.32	57.35	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280647.8762
5573540	7/23/2001	4	1.32	57.35	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280647.8762
5573540	7/30/2001	4	1.32	57.35	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280647.8762
5573540	8/26/1999	4	1.32	57.35	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280647.8762
5573540	8/26/2000	4	1.32	57.35	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280647.8762
5573540	8/24/2010	4	1.32	57.35	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280647.8762
5573540	9/24/2009	4	1.32	57.35	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280647.8762
5573540	10/19/2011	4	1.32	57.35	3380	70.6374%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280647.8762
5573540	5/5/2000	3.9	1.32	57.22	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280002.4672
5573540	5/26/2012	3.9	1.32	57.22	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280002.4672
5573540	7/31/2001	3.9	1.32	57.22	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280002.4672
5573540	7/13/2007	3.9	1.32	57.22	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280002.4672
5573540	8/17/1995	3.9	1.32	57.22	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280002.4672
5573540	8/5/1997	3.9	1.32	57.22	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280002.4672
5573540	8/6/1997	3.9	1.32	57.22	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280002.4672
5573540	8/12/1997	3.9	1.32	57.22	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280002.4672
5573540	8/22/2000	3.9	1.32	57.22	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280002.4672
5573540	8/13/2001	3.9	1.32	57.22	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280002.4672
5573540	8/20/2001	3.9	1.32	57.22	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280002.4672
5573540	8/13/2003	3.9	1.32	57.22	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280002.4672
5573540	8/20/2003	3.9	1.32	57.22	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280002.4672
5573540	8/21/2003	3.9	1.32	57.22	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280002.4672
5573540	8/25/2003	3.9	1.32	57.22	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280002.4672
5573540	9/21/1997	3.9	1.32	57.22	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280002.4672

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/11/2010	3.9	1.32	57.22	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280002.4672
5573540	10/6/2006	3.9	1.32	57.22	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280002.4672
5573540	10/17/2011	3.9	1.32	57.22	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280002.4672
5573540	10/27/2015	3.9	1.32	57.22	3389	70.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	280002.4672
5573540	6/30/1994	3.8	1.32	57.09	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279357.0582
5573540	7/27/2005	3.8	1.32	57.09	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279357.0582
5573540	7/18/2011	3.8	1.32	57.09	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279357.0582
5573540	8/17/1996	3.8	1.32	57.09	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279357.0582
5573540	8/5/2001	3.8	1.32	57.09	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279357.0582
5573540	8/14/2001	3.8	1.32	57.09	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279357.0582
5573540	8/16/2003	3.8	1.32	57.09	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279357.0582
5573540	8/22/2003	3.8	1.32	57.09	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279357.0582
5573540	9/17/2002	3.8	1.32	57.09	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279357.0582
5573540	9/27/2009	3.8	1.32	57.09	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279357.0582
5573540	9/18/2012	3.8	1.32	57.09	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279357.0582
5573540	10/3/1991	3.8	1.32	57.09	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279357.0582
5573540	10/7/1991	3.8	1.32	57.09	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279357.0582
5573540	10/25/1991	3.8	1.32	57.09	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279357.0582
5573540	10/30/1997	3.8	1.32	57.09	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279357.0582
5573540	10/8/2005	3.8	1.32	57.09	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279357.0582
5573540	10/3/2009	3.8	1.32	57.09	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279357.0582
5573540	10/20/2011	3.8	1.32	57.09	3409	71.2435%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	279357.0582
5573540	5/25/2012	3.7	1.32	56.95	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278711.6492
5573540	7/12/1995	3.7	1.32	56.95	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278711.6492
5573540	7/24/2001	3.7	1.32	56.95	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278711.6492
5573540	7/24/2006	3.7	1.32	56.95	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278711.6492
5573540	8/16/1997	3.7	1.32	56.95	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278711.6492
5573540	8/4/1999	3.7	1.32	56.95	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278711.6492
5573540	8/7/2001	3.7	1.32	56.95	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278711.6492
5573540	8/9/2001	3.7	1.32	56.95	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278711.6492
5573540	8/12/2001	3.7	1.32	56.95	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278711.6492
5573540	8/15/2001	3.7	1.32	56.95	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278711.6492
5573540	8/26/2001	3.7	1.32	56.95	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278711.6492
5573540	8/14/2003	3.7	1.32	56.95	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278711.6492
5573540	8/15/2003	3.7	1.32	56.95	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278711.6492
5573540	8/19/2003	3.7	1.32	56.95	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278711.6492
5573540	8/24/2003	3.7	1.32	56.95	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278711.6492
5573540	8/28/2003	3.7	1.32	56.95	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278711.6492
5573540	8/30/2003	3.7	1.32	56.95	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278711.6492
5573540	9/8/2014	3.7	1.32	56.95	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278711.6492
5573540	10/31/1997	3.7	1.32	56.95	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278711.6492
5573540	10/2/2010	3.7	1.32	56.95	3427	71.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278711.6492
5573540	7/27/2001	3.6	1.32	56.82	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278066.2402
5573540	8/8/1997	3.6	1.32	56.82	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278066.2402
5573540	8/6/2001	3.6	1.32	56.82	3447	72.0376%	Fecal_coliform	220	cfu/100mL	200	283.2	305872.8642	278066.2402
5573540	8/8/2001	3.6	1.32	56.82	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278066.2402

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/10/2001	3.6	1.32	56.82	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278066.2402
5573540	8/11/2001	3.6	1.32	56.82	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278066.2402
5573540	8/18/2002	3.6	1.32	56.82	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278066.2402
5573540	8/14/2005	3.6	1.32	56.82	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278066.2402
5573540	8/18/2011	3.6	1.32	56.82	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278066.2402
5573540	9/19/1990	3.6	1.32	56.82	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278066.2402
5573540	9/4/1992	3.6	1.32	56.82	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278066.2402
5573540	9/16/2009	3.6	1.32	56.82	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278066.2402
5573540	10/8/1997	3.6	1.32	56.82	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278066.2402
5573540	10/8/2006	3.6	1.32	56.82	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278066.2402
5573540	10/4/2009	3.6	1.32	56.82	3447	72.0376%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	278066.2402
5573540	6/25/1991	3.5	1.32	56.69	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277420.8312
5573540	8/7/1997	3.5	1.32	56.69	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277420.8312
5573540	8/12/2000	3.5	1.32	56.69	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277420.8312
5573540	8/23/2003	3.5	1.32	56.69	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277420.8312
5573540	8/16/2015	3.5	1.32	56.69	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277420.8312
5573540	9/1/1997	3.5	1.32	56.69	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277420.8312
5573540	9/14/2000	3.5	1.32	56.69	3462	72.3511%	Fecal_coliform	520	cfu/100mL	200	283.2	721294.1612	277420.8312
5573540	9/8/2001	3.5	1.32	56.69	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277420.8312
5573540	9/21/2001	3.5	1.32	56.69	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277420.8312
5573540	9/29/2005	3.5	1.32	56.69	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277420.8312
5573540	10/6/1990	3.5	1.32	56.69	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277420.8312
5573540	10/24/1991	3.5	1.32	56.69	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277420.8312
5573540	10/21/1996	3.5	1.32	56.69	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277420.8312
5573540	10/28/2015	3.5	1.32	56.69	3462	72.3511%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	277420.8312
5573540	7/25/2011	3.4	1.32	56.56	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276775.4222
5573540	7/27/2011	3.4	1.32	56.56	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276775.4222
5573540	8/30/1998	3.4	1.32	56.56	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276775.4222
5573540	8/2/2007	3.4	1.32	56.56	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276775.4222
5573540	8/31/2010	3.4	1.32	56.56	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276775.4222
5573540	8/5/2013	3.4	1.32	56.56	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276775.4222
5573540	9/23/1997	3.4	1.32	56.56	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276775.4222
5573540	9/24/1997	3.4	1.32	56.56	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276775.4222
5573540	9/10/2001	3.4	1.32	56.56	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276775.4222
5573540	9/15/2011	3.4	1.32	56.56	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276775.4222
5573540	10/7/1997	3.4	1.32	56.56	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276775.4222
5573540	10/1/1999	3.4	1.32	56.56	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276775.4222
5573540	10/5/2009	3.4	1.32	56.56	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276775.4222
5573540	10/4/2013	3.4	1.32	56.56	3476	72.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276775.4222
5573540	6/12/2012	3.3	1.32	56.43	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276130.0132
5573540	8/13/1997	3.3	1.32	56.43	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276130.0132
5573540	8/5/1999	3.3	1.32	56.43	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276130.0132
5573540	8/19/2000	3.3	1.32	56.43	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276130.0132
5573540	8/21/2001	3.3	1.32	56.43	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276130.0132
5573540	8/22/2001	3.3	1.32	56.43	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276130.0132
5573540	8/4/2007	3.3	1.32	56.43	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276130.0132

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/15/2015	3.3	1.32	56.43	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276130.0132
5573540	8/30/2015	3.3	1.32	56.43	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276130.0132
5573540	9/5/1992	3.3	1.32	56.43	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276130.0132
5573540	9/8/1992	3.3	1.32	56.43	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276130.0132
5573540	9/19/2001	3.3	1.32	56.43	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276130.0132
5573540	9/10/2013	3.3	1.32	56.43	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276130.0132
5573540	10/15/1992	3.3	1.32	56.43	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276130.0132
5573540	10/8/1998	3.3	1.32	56.43	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276130.0132
5573540	10/17/1998	3.3	1.32	56.43	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276130.0132
5573540	10/20/2002	3.3	1.32	56.43	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276130.0132
5573540	10/23/2007	3.3	1.32	56.43	3490	72.9363%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	276130.0132
5573540	7/23/2005	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	7/14/2007	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	7/19/2011	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	8/6/1999	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	8/9/1999	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	8/10/1999	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	8/28/1999	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	8/13/2000	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	8/24/2000	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	8/17/2001	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	8/27/2001	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	8/29/2001	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	8/22/2005	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	8/20/2008	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	8/25/2010	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	9/24/1992	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	9/25/1999	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	9/26/1999	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	9/28/2009	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	9/12/2011	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	9/8/2013	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	9/8/2015	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	10/7/1992	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	10/8/1992	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	10/26/2002	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	10/9/2006	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	10/25/2010	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	10/30/2013	3.2	1.32	56.29	3508	73.3124%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	275484.6042
5573540	7/15/2012	3.1	1.32	56.16	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274839.1952
5573540	8/14/1997	3.1	1.32	56.16	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274839.1952
5573540	8/29/1999	3.1	1.32	56.16	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274839.1952
5573540	8/17/2003	3.1	1.32	56.16	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274839.1952
5573540	8/18/2003	3.1	1.32	56.16	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274839.1952
5573540	8/26/2010	3.1	1.32	56.16	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274839.1952
5573540	8/27/2010	3.1	1.32	56.16	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274839.1952

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/30/2010	3.1	1.32	56.16	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274839.1952
5573540	8/14/2011	3.1	1.32	56.16	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274839.1952
5573540	9/6/1992	3.1	1.32	56.16	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274839.1952
5573540	9/18/1997	3.1	1.32	56.16	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274839.1952
5573540	9/22/1997	3.1	1.32	56.16	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274839.1952
5573540	9/12/1999	3.1	1.32	56.16	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274839.1952
5573540	9/27/1999	3.1	1.32	56.16	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274839.1952
5573540	9/3/2000	3.1	1.32	56.16	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274839.1952
5573540	9/9/2013	3.1	1.32	56.16	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274839.1952
5573540	10/19/1991	3.1	1.32	56.16	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274839.1952
5573540	10/1/1992	3.1	1.32	56.16	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274839.1952
5573540	10/13/2007	3.1	1.32	56.16	3536	73.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274839.1952
5573540	6/14/2012	3	1.32	56.03	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274193.7862
5573540	7/23/2006	3	1.32	56.03	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274193.7862
5573540	8/11/1999	3	1.32	56.03	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274193.7862
5573540	8/5/2007	3	1.32	56.03	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274193.7862
5573540	8/20/2007	3	1.32	56.03	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274193.7862
5573540	8/30/2011	3	1.32	56.03	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274193.7862
5573540	8/31/2015	3	1.32	56.03	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274193.7862
5573540	9/27/2000	3	1.32	56.03	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274193.7862
5573540	9/29/2009	3	1.32	56.03	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274193.7862
5573540	9/30/2009	3	1.32	56.03	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274193.7862
5573540	9/5/2012	3	1.32	56.03	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274193.7862
5573540	9/26/2012	3	1.32	56.03	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274193.7862
5573540	10/8/1991	3	1.32	56.03	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274193.7862
5573540	10/20/1991	3	1.32	56.03	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274193.7862
5573540	10/23/1991	3	1.32	56.03	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274193.7862
5573540	10/30/1996	3	1.32	56.03	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274193.7862
5573540	10/6/1997	3	1.32	56.03	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274193.7862
5573540	10/1/1998	3	1.32	56.03	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274193.7862
5573540	10/12/2006	3	1.32	56.03	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274193.7862
5573540	10/24/2010	3	1.32	56.03	3555	74.2947%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	274193.7862
5573540	6/16/2012	2.9	1.32	55.90	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273548.3772
5573540	8/14/2000	2.9	1.32	55.90	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273548.3772
5573540	8/15/2000	2.9	1.32	55.90	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273548.3772
5573540	8/16/2000	2.9	1.32	55.90	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273548.3772
5573540	8/27/2000	2.9	1.32	55.90	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273548.3772
5573540	8/29/2000	2.9	1.32	55.90	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273548.3772
5573540	8/28/2010	2.9	1.32	55.90	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273548.3772
5573540	8/17/2011	2.9	1.32	55.90	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273548.3772
5573540	8/29/2011	2.9	1.32	55.90	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273548.3772
5573540	8/12/2015	2.9	1.32	55.90	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273548.3772
5573540	9/9/1990	2.9	1.32	55.90	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273548.3772
5573540	9/21/1990	2.9	1.32	55.90	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273548.3772
5573540	9/7/1992	2.9	1.32	55.90	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273548.3772
5573540	9/23/1992	2.9	1.32	55.90	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273548.3772

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/1/2000	2.9	1.32	55.90	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273548.3772
5573540	9/2/2000	2.9	1.32	55.90	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273548.3772
5573540	9/7/2007	2.9	1.32	55.90	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273548.3772
5573540	9/11/2011	2.9	1.32	55.90	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273548.3772
5573540	10/5/1999	2.9	1.32	55.90	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273548.3772
5573540	10/7/1999	2.9	1.32	55.90	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273548.3772
5573540	10/25/2012	2.9	1.32	55.90	3575	74.7126%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	273548.3772
5573540	7/24/2005	2.8	1.32	55.77	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272902.9682
5573540	7/15/2007	2.8	1.32	55.77	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272902.9682
5573540	8/25/2000	2.8	1.32	55.77	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272902.9682
5573540	8/28/2000	2.8	1.32	55.77	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272902.9682
5573540	8/31/2000	2.8	1.32	55.77	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272902.9682
5573540	8/11/2005	2.8	1.32	55.77	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272902.9682
5573540	8/23/2008	2.8	1.32	55.77	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272902.9682
5573540	8/6/2013	2.8	1.32	55.77	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272902.9682
5573540	9/22/1990	2.8	1.32	55.77	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272902.9682
5573540	9/24/1999	2.8	1.32	55.77	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272902.9682
5573540	9/4/2000	2.8	1.32	55.77	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272902.9682
5573540	9/26/2010	2.8	1.32	55.77	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272902.9682
5573540	9/1/2015	2.8	1.32	55.77	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272902.9682
5573540	10/21/1991	2.8	1.32	55.77	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272902.9682
5573540	10/9/1992	2.8	1.32	55.77	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272902.9682
5573540	10/5/1997	2.8	1.32	55.77	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272902.9682
5573540	10/31/1999	2.8	1.32	55.77	3596	75.1515%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272902.9682
5573540	5/3/2003	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	7/16/2007	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	7/20/2011	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	8/30/1999	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	8/20/2000	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	8/21/2000	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	8/30/2000	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	8/29/2010	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	8/7/2013	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	8/12/2013	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	9/25/1997	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	9/2/1999	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	9/3/1999	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	9/13/1999	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	9/22/1999	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	9/23/1999	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	9/5/2000	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	9/6/2000	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	9/7/2000	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	9/11/2001	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	9/27/2005	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	10/22/1991	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/10/1992	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	10/2/1995	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	10/14/1996	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	10/15/1996	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	10/31/1996	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	10/19/2010	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	10/20/2010	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	10/23/2010	2.7	1.32	55.63	3613	75.5068%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	272257.5592
5573540	7/21/2011	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	7/31/2011	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	8/31/1999	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	8/9/2005	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	8/10/2005	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	8/3/2007	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	8/16/2007	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	8/28/2011	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	8/9/2013	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	8/11/2013	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	8/16/2013	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	8/17/2013	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	9/20/1992	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	9/4/1999	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	9/11/1999	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	9/18/1999	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	9/19/1999	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	9/20/1999	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	9/12/2013	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	9/20/2013	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	10/11/1992	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	10/12/1992	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	10/13/1992	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	10/14/1992	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	10/31/1994	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	10/16/1996	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	10/4/1997	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	10/2/1998	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	10/6/1999	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	10/13/2006	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	10/26/2007	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	10/18/2010	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	10/21/2010	2.6	1.32	55.50	3643	76.1338%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	271612.1502
5573540	6/15/2012	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	8/3/2005	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	8/4/2005	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	42	cfu/100mL	200	283.2	56903.01566	270966.7412
5573540	8/8/2005	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	8/21/2008	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/8/2013	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	8/13/2013	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	8/18/2013	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	8/19/2013	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	8/20/2013	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	8/23/2013	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	8/13/2015	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	9/14/1990	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	9/20/1990	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	9/1/1991	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	9/15/1992	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	9/23/1994	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	9/1/1999	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	9/5/1999	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	9/17/1999	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	9/21/1999	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	9/8/2000	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	9/7/2005	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	9/7/2013	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	10/12/1996	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	10/13/1996	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	10/4/1998	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	10/2/1999	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	10/23/2005	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	10/5/2006	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	10/12/2010	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	10/27/2010	2.5	1.32	55.37	3676	76.8234%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270966.7412
5573540	5/15/2001	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	7/25/2005	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	7/26/2011	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	7/28/2011	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	7/8/2012	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	8/11/1991	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	8/1/1996	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	8/22/2002	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	8/1/2011	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	8/13/2011	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	8/27/2011	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	8/10/2013	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	8/14/2013	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	8/15/2013	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	8/21/2013	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	8/22/2013	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	8/24/2013	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	9/15/1990	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	9/6/1999	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/7/1999	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	9/8/1999	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	9/14/1999	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	9/16/1999	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	9/9/2000	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	9/22/2000	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	9/28/2000	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	9/12/2001	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	9/5/2011	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	9/13/2011	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	9/29/2011	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	9/13/2013	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	9/14/2013	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	10/9/1991	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	10/25/1996	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	10/28/2002	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	10/14/2006	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	10/13/2010	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	10/22/2010	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	10/31/2015	2.4	1.32	55.24	3708	77.4922%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	270321.3322
5573540	5/1/2001	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	7/17/1991	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	7/30/2011	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	8/28/2001	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	8/2/2005	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	8/26/2011	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	9/7/1994	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	9/9/1999	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	80	cfu/100mL	200	283.2	107870.3693	269675.9232
5573540	9/10/1999	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	9/15/1999	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	9/14/2001	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	9/20/2001	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	9/16/2005	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	9/11/2013	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	9/21/2013	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	10/18/1991	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	10/28/1992	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	10/29/1992	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	10/10/1996	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	10/11/1996	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	10/3/1997	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	10/3/1998	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	10/30/1999	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	10/3/2000	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	10/15/2006	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	10/17/2007	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/11/2010	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	10/4/2015	2.3	1.32	55.11	3747	78.3072%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269675.9232
5573540	7/22/2011	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	7/29/2011	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	8/10/1990	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	8/13/1994	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	8/24/1998	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	8/5/2005	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	8/7/2005	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	8/15/2005	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	8/6/2007	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	8/25/2013	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	9/13/1990	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	9/16/1992	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	9/28/1996	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	9/17/2001	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	9/5/2002	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	9/20/2011	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	9/5/2015	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	9/19/2015	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	10/9/1994	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	10/1/1995	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	10/8/1996	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	10/9/1996	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	10/29/1996	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	10/2/2000	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	10/2/2006	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	10/1/2007	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	10/18/2015	2.2	1.32	54.97	3775	78.8924%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	269030.5142
5573540	6/26/1991	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	8/26/1995	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	8/22/1998	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	8/1/2005	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	8/6/2005	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	8/24/2008	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	8/4/2011	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	8/5/2011	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	8/10/2011	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	8/26/2013	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	8/27/2013	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	8/28/2013	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	9/10/1990	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	9/20/2000	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	9/29/2000	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	9/30/2000	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	9/15/2001	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/16/2001	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	9/22/2001	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	9/26/2007	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	10/15/1991	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	10/16/1991	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	10/17/1991	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	10/27/1992	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	10/26/1996	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	10/27/1996	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	10/1/2000	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	10/29/2005	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	10/15/2010	2.1	1.32	54.84	3802	79.4566%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	268385.1052
5573540	7/1/1994	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	7/22/1994	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	7/22/2002	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	8/18/2005	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	8/26/2008	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	8/19/2011	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	8/29/2013	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	8/30/2013	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	9/12/1990	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	9/18/1990	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	9/17/1992	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	9/27/1992	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	9/30/1998	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	9/11/2000	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	9/23/2000	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	9/13/2001	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	9/19/2010	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	9/23/2010	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	9/1/2011	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	9/2/2015	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	10/10/1991	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	10/12/1991	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	10/28/1996	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	10/2/1997	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	10/9/1998	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	10/17/1999	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	10/29/1999	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	10/10/2000	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	10/3/2001	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	10/27/2002	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	10/6/2012	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	10/19/2012	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	10/1/2013	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	10/5/2015	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/6/2015	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	10/26/2015	2	1.32	54.71	3831	80.0627%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267739.6962
5573540	7/13/1995	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	7/23/2011	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	8/2/1994	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	8/20/2005	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	8/30/2005	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	8/28/2008	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	8/9/2011	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	8/12/2011	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	8/31/2013	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	9/11/1990	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	9/16/1990	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	9/23/1990	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	9/8/1996	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	9/26/1997	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	9/9/2007	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	9/25/2007	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	9/17/2011	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	9/1/2013	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	9/2/2013	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	10/11/1991	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	10/14/1991	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	10/7/1996	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	10/16/1998	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	10/14/2002	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	10/15/2002	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	10/2/2007	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	10/22/2007	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	10/14/2010	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	10/16/2010	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	10/17/2010	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	10/28/2010	1.9	1.32	54.58	3867	80.8150%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	267094.2872
5573540	7/2/1991	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	7/29/2005	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	8/18/1995	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	8/17/2007	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	8/19/2007	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	8/27/2008	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	8/2/2011	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	8/6/2011	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	8/7/2011	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	8/8/2011	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	8/11/2011	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	9/18/1992	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	9/19/1992	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/13/2000	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	9/21/2000	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	9/30/2005	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	9/28/2007	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	9/25/2010	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	9/3/2013	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	9/16/2013	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	9/3/2015	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	10/13/1991	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	10/11/1999	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	10/18/1999	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	10/22/1999	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	10/28/1999	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	10/4/2001	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	10/16/2002	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	10/17/2002	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	10/19/2007	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	10/29/2015	1.8	1.32	54.45	3898	81.4629%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	266448.8782
5573540	6/18/2012	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	7/28/2005	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	7/30/2005	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	7/7/2012	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	8/14/2002	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	8/17/2005	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	8/18/2007	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	8/21/2007	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	8/25/2008	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	8/6/2012	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	9/15/2000	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	9/16/2000	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	9/17/2000	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	9/19/2000	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	9/23/2001	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	9/6/2002	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	9/18/2002	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	9/6/2005	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	9/6/2007	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	9/11/2007	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	9/27/2007	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	9/29/2007	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	9/30/2007	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	9/2/2011	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	9/16/2011	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	9/4/2013	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	9/5/2013	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	9/23/2013	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/1/1997	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	10/10/1998	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	10/19/1999	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	10/23/1999	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	10/27/2007	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	10/3/2010	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	10/29/2010	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	10/31/2010	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	10/24/2015	1.7	1.32	54.32	3929	82.1108%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265803.4692
5573540	6/19/2012	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	7/3/1991	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	7/17/2002	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	8/27/1994	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	8/13/2002	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	8/16/2005	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	8/21/2005	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	8/29/2005	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	8/29/2008	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	8/3/2011	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	9/24/1994	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	9/18/2000	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	9/8/2005	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	9/27/2010	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	9/6/2011	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	9/6/2013	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	9/15/2013	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	9/17/2013	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	9/19/2013	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	9/24/2013	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	9/25/2013	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	9/26/2013	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	9/9/2015	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	9/12/2015	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	10/1/1990	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	10/16/1999	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	10/20/1999	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	200	cfu/100mL	200	283.2	265158.0602	265158.0602
5573540	10/21/1999	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	10/24/1999	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	10/21/2000	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	10/12/2002	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	10/14/2007	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	10/10/2010	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	10/14/2011	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	10/2/2013	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	10/25/2015	1.6	1.32	54.18	3966	82.8840%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	265158.0602
5573540	5/2/2001	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	5/6/2001	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	6/27/1991	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	6/20/2012	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	7/7/1991	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	7/18/1991	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	7/31/2005	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	8/23/1998	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	8/15/2002	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	8/25/2005	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	8/26/2005	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	8/31/2005	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	8/11/2007	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	8/12/2007	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	8/15/2007	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	8/23/2007	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	8/24/2007	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	8/30/2008	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	8/31/2008	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	8/25/2011	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	9/24/1990	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	9/5/1991	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	9/1/1994	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	9/30/1995	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	9/27/1997	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	9/29/1998	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	9/10/2007	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	9/1/2008	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	9/8/2010	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	9/21/2010	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	9/25/2011	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	9/18/2013	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	9/22/2013	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	9/28/2013	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	9/30/2013	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	10/26/1992	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	10/8/1994	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	10/11/1998	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	10/15/1998	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	10/25/1999	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	10/26/1999	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	10/27/1999	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	10/14/2000	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	10/13/2002	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	10/28/2005	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	10/3/2006	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	10/9/2007	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/4/2010	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	10/9/2010	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	10/30/2010	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	10/7/2015	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	10/19/2015	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	10/22/2015	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	10/30/2015	1.5	1.32	54.05	4002	83.6364%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	264512.6512
5573540	5/3/2001	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	5/5/2001	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	7/6/1991	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	7/29/1995	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	8/4/1994	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	8/7/2007	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	8/14/2007	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	8/22/2007	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	9/9/1995	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	9/22/1995	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	9/30/1997	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	9/24/2001	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	9/25/2001	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	9/30/2001	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	9/24/2007	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	9/2/2008	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	9/24/2010	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	9/30/2010	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	9/29/2013	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	9/13/2015	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	9/15/2015	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	9/17/2015	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	9/18/2015	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	10/2/1990	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	10/12/1998	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	10/24/2000	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	10/1/2001	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	10/11/2002	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	10/21/2002	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	10/6/2007	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	10/10/2007	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	10/1/2010	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	10/17/2015	1.4	1.32	53.92	4056	84.7649%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263867.2422
5573540	5/22/1993	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	5/4/2001	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	8/26/1996	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	8/23/2005	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	8/24/2005	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	8/13/2007	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/25/2007	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	9/17/1990	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	9/25/1990	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	9/8/1995	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	9/26/2001	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	9/1/2005	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	9/5/2005	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	9/9/2010	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	9/12/2010	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	9/20/2010	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	9/7/2011	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	9/27/2013	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	9/4/2015	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	9/6/2015	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	9/10/2015	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	9/16/2015	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	10/13/1998	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	10/14/1998	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	10/15/1999	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	10/5/2007	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	10/11/2007	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	10/20/2007	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	10/5/2010	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	10/8/2010	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	10/27/2012	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	10/5/2013	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	10/13/2015	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	10/14/2015	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	10/21/2015	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	10/23/2015	1.3	1.32	53.79	4089	85.4545%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	263221.8332
5573540	5/23/1993	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	6/28/1991	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	7/4/1991	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	7/19/1991	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	8/18/1996	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	8/27/2005	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	8/8/2007	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	8/10/2007	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	9/26/1990	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	9/27/1990	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	9/28/1990	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	9/29/1990	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	9/30/1990	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	9/21/1995	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	9/9/1996	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	9/25/1996	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/28/1997	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	9/27/2001	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	9/8/2002	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	9/21/2007	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	9/16/2010	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	9/28/2010	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	9/29/2010	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	9/9/2012	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	10/13/1999	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	10/14/1999	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	10/3/2005	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	10/24/2005	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	10/30/2005	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	10/4/2006	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	10/4/2007	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	10/7/2007	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	10/8/2007	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	10/7/2010	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	10/10/2015	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	10/11/2015	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	10/16/2015	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	10/20/2015	1.2	1.32	53.66	4125	86.2069%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	262576.4242
5573540	7/1/1991	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	7/8/1991	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	7/23/1995	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	8/12/1990	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	8/12/1991	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	8/5/1994	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	8/9/2007	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	8/20/2011	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	9/10/1991	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	9/29/1995	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	9/29/1997	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	9/13/2005	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	9/17/2005	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	9/5/2007	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	9/12/2007	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	9/15/2007	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	9/23/2007	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	9/10/2010	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	9/13/2010	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	9/17/2010	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	9/24/2011	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	9/17/2012	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	9/7/2015	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	9/14/2015	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/6/1996	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	10/2/2001	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	10/10/2002	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	10/9/2005	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	10/24/2007	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	10/6/2010	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	10/21/2011	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	10/6/2013	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	10/9/2015	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	10/12/2015	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	10/15/2015	1.1	1.32	53.52	4163	87.0010%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261931.0152
5573540	5/16/2001	1	1.32	53.39	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261285.6062
5573540	7/5/1991	1	1.32	53.39	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261285.6062
5573540	7/23/1994	1	1.32	53.39	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261285.6062
5573540	9/24/1996	1	1.32	53.39	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261285.6062
5573540	9/9/2002	1	1.32	53.39	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261285.6062
5573540	9/2/2005	1	1.32	53.39	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261285.6062
5573540	9/18/2005	1	1.32	53.39	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261285.6062
5573540	9/16/2007	1	1.32	53.39	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261285.6062
5573540	9/17/2007	1	1.32	53.39	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261285.6062
5573540	9/18/2007	1	1.32	53.39	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261285.6062
5573540	9/20/2007	1	1.32	53.39	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261285.6062
5573540	9/22/2007	1	1.32	53.39	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261285.6062
5573540	9/14/2010	1	1.32	53.39	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261285.6062
5573540	9/21/2011	1	1.32	53.39	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261285.6062
5573540	9/23/2011	1	1.32	53.39	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261285.6062
5573540	10/21/2007	1	1.32	53.39	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261285.6062
5573540	10/16/2012	1	1.32	53.39	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261285.6062
5573540	10/20/2012	1	1.32	53.39	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261285.6062
5573540	10/8/2015	1	1.32	53.39	4198	87.7325%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261285.6062
5573540	7/12/2002	0.99	1.32	53.38	4217	88.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261221.0653
5573540	9/7/2002	0.99	1.32	53.38	4217	88.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261221.0653
5573540	9/8/2011	0.99	1.32	53.38	4217	88.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261221.0653
5573540	10/7/2013	0.99	1.32	53.38	4217	88.1296%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261221.0653
5573540	8/14/2012	0.97	1.32	53.35	4221	88.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261091.9835
5573540	9/2/1991	0.97	1.32	53.35	4221	88.2132%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261091.9835
5573540	8/20/2002	0.96	1.32	53.34	4223	88.2550%	Fecal_coliform	800	cfu/100mL	200	283.2	1044109.771	261027.4426
5573540	8/24/2011	0.96	1.32	53.34	4223	88.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261027.4426
5573540	9/18/2010	0.96	1.32	53.34	4223	88.2550%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	261027.4426
5573540	6/27/2012	0.95	1.32	53.33	4226	88.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260962.9017
5573540	9/23/1995	0.95	1.32	53.33	4226	88.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260962.9017
5573540	9/15/2010	0.95	1.32	53.33	4226	88.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260962.9017
5573540	10/1/2005	0.95	1.32	53.33	4226	88.3177%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260962.9017
5573540	7/20/1991	0.94	1.32	53.31	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260898.3608
5573540	8/17/2002	0.94	1.32	53.31	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260898.3608
5573540	8/23/2011	0.94	1.32	53.31	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260898.3608

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/13/2007	0.94	1.32	53.31	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260898.3608
5573540	10/28/2007	0.94	1.32	53.31	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260898.3608
5573540	10/19/2013	0.94	1.32	53.31	4230	88.4013%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260898.3608
5573540	6/21/2012	0.93	1.32	53.30	4236	88.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260833.8199
5573540	6/25/2012	0.93	1.32	53.30	4236	88.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260833.8199
5573540	8/26/2007	0.93	1.32	53.30	4236	88.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260833.8199
5573540	9/19/2007	0.93	1.32	53.30	4236	88.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260833.8199
5573540	10/8/2011	0.93	1.32	53.30	4236	88.5266%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260833.8199
5573540	8/21/2002	0.92	1.32	53.29	4241	88.6311%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260769.279
5573540	8/13/2012	0.92	1.32	53.29	4241	88.6311%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260769.279
5573540	9/10/1995	0.92	1.32	53.29	4241	88.6311%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260769.279
5573540	9/28/1998	0.92	1.32	53.29	4241	88.6311%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260769.279
5573540	10/12/1999	0.92	1.32	53.29	4241	88.6311%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260769.279
5573540	10/10/2005	0.92	1.32	53.29	4241	88.6311%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260769.279
5573540	6/29/1991	0.91	1.32	53.27	4247	88.7565%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260704.7381
5573540	9/12/2005	0.91	1.32	53.27	4247	88.7565%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260704.7381
5573540	7/9/1991	0.9	1.32	53.26	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260640.1972
5573540	7/14/1995	0.9	1.32	53.26	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260640.1972
5573540	8/27/1995	0.9	1.32	53.26	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260640.1972
5573540	8/25/1998	0.9	1.32	53.26	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260640.1972
5573540	8/12/2002	0.9	1.32	53.26	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260640.1972
5573540	10/25/1992	0.9	1.32	53.26	4249	88.7983%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260640.1972
5573540	6/28/2012	0.89	1.32	53.25	4255	88.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260575.6563
5573540	9/27/2012	0.89	1.32	53.25	4255	88.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260575.6563
5573540	10/22/2002	0.89	1.32	53.25	4255	88.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260575.6563
5573540	10/19/2005	0.89	1.32	53.25	4255	88.9237%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260575.6563
5573540	8/27/1991	0.87	1.32	53.22	4259	89.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260446.5745
5573540	8/28/1993	0.87	1.32	53.22	4259	89.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260446.5745
5573540	8/19/1995	0.87	1.32	53.22	4259	89.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260446.5745
5573540	9/4/2005	0.87	1.32	53.22	4259	89.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260446.5745
5573540	10/3/2012	0.87	1.32	53.22	4259	89.0073%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260446.5745
5573540	7/10/1991	0.86	1.32	53.21	4264	89.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260382.0336
5573540	9/14/2007	0.86	1.32	53.21	4264	89.1118%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260382.0336
5573540	8/21/2011	0.85	1.32	53.19	4266	89.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260317.4927
5573540	10/7/2011	0.85	1.32	53.19	4266	89.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260317.4927
5573540	10/15/2013	0.85	1.32	53.19	4266	89.1536%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260317.4927
5573540	6/26/2012	0.84	1.32	53.18	4269	89.2163%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260252.9518
5573540	10/12/2013	0.84	1.32	53.18	4269	89.2163%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260252.9518
5573540	8/14/1994	0.83	1.32	53.17	4271	89.2581%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260188.4109
5573540	8/27/2007	0.83	1.32	53.17	4271	89.2581%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260188.4109
5573540	9/3/2012	0.83	1.32	53.17	4271	89.2581%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260188.4109
5573540	5/7/2001	0.82	1.32	53.15	4274	89.3208%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260123.87
5573540	6/30/1991	0.81	1.32	53.14	4275	89.3417%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260059.3291
5573540	8/28/2005	0.81	1.32	53.14	4275	89.3417%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260059.3291
5573540	10/30/2007	0.81	1.32	53.14	4275	89.3417%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260059.3291
5573540	10/13/2013	0.81	1.32	53.14	4275	89.3417%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	260059.3291

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	6/22/2012	0.8	1.32	53.13	4279	89.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259994.7882
5573540	9/20/1995	0.8	1.32	53.13	4279	89.4253%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259994.7882
5573540	7/21/1991	0.79	1.32	53.12	4281	89.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259930.2473
5573540	8/28/1991	0.79	1.32	53.12	4281	89.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259930.2473
5573540	9/4/2007	0.79	1.32	53.12	4281	89.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259930.2473
5573540	10/9/2002	0.79	1.32	53.12	4281	89.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259930.2473
5573540	10/29/2007	0.79	1.32	53.12	4281	89.4671%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259930.2473
5573540	6/24/2012	0.78	1.32	53.10	4286	89.5716%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259865.7064
5573540	8/28/2007	0.78	1.32	53.10	4286	89.5716%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259865.7064
5573540	9/21/2005	0.78	1.32	53.10	4286	89.5716%	Fecal_coliform	240	cfu/100mL	200	283.2	311838.8477	259865.7064
5573540	7/22/1991	0.77	1.32	53.09	4289	89.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259801.1655
5573540	7/3/2012	0.77	1.32	53.09	4289	89.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259801.1655
5573540	7/9/2012	0.77	1.32	53.09	4289	89.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259801.1655
5573540	10/11/2013	0.77	1.32	53.09	4289	89.6343%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259801.1655
5573540	7/18/2002	0.76	1.32	53.08	4293	89.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259736.6246
5573540	8/12/1994	0.76	1.32	53.08	4293	89.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259736.6246
5573540	10/8/2002	0.76	1.32	53.08	4293	89.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259736.6246
5573540	10/4/2005	0.76	1.32	53.08	4293	89.7179%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259736.6246
5573540	9/22/2011	0.75	1.32	53.06	4297	89.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259672.0837
5573540	10/22/1992	0.75	1.32	53.06	4297	89.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259672.0837
5573540	10/6/2011	0.75	1.32	53.06	4297	89.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259672.0837
5573540	10/31/2011	0.75	1.32	53.06	4297	89.8015%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259672.0837
5573540	7/23/1991	0.74	1.32	53.05	4301	89.8851%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259607.5428
5573540	9/24/1995	0.74	1.32	53.05	4301	89.8851%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259607.5428
5573540	10/28/2012	0.74	1.32	53.05	4301	89.8851%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259607.5428
5573540	10/15/2011	0.72	1.32	53.02	4304	89.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259478.461
5573540	10/14/2013	0.72	1.32	53.02	4304	89.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259478.461
5573540	10/16/2013	0.72	1.32	53.02	4304	89.9478%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259478.461
5573540	5/17/2001	0.71	1.32	53.01	4307	90.0104%	Fecal_coliform	210	cfu/100mL	200	283.2	272384.6161	259413.9201
5573540	9/6/1991	0.71	1.32	53.01	4307	90.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259413.9201
5573540	9/28/1995	0.71	1.32	53.01	4307	90.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259413.9201
5573540	10/31/2007	0.71	1.32	53.01	4307	90.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259413.9201
5573540	10/9/2011	0.71	1.32	53.01	4307	90.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259413.9201
5573540	10/9/2013	0.71	1.32	53.01	4307	90.0104%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259413.9201
5573540	8/2/1996	0.7	1.32	53.00	4313	90.1358%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259349.3792
5573540	8/29/2007	0.69	1.32	52.98	4314	90.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259284.8383
5573540	10/5/2011	0.69	1.32	52.98	4314	90.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259284.8383
5573540	10/8/2013	0.69	1.32	52.98	4314	90.1567%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259284.8383
5573540	9/3/2005	0.68	1.32	52.97	4317	90.2194%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259220.2974
5573540	10/2/1991	0.68	1.32	52.97	4317	90.2194%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259220.2974
5573540	8/11/1990	0.67	1.32	52.96	4319	90.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259155.7565
5573540	8/27/1996	0.67	1.32	52.96	4319	90.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259155.7565
5573540	8/22/2011	0.67	1.32	52.96	4319	90.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259155.7565
5573540	9/2/2007	0.67	1.32	52.96	4319	90.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259155.7565
5573540	10/25/2007	0.67	1.32	52.96	4319	90.2612%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259155.7565
5573540	8/20/1994	0.65	1.32	52.93	4324	90.3657%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259026.6747

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/27/2012	0.65	1.32	52.93	4324	90.3657%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	259026.6747
5573540	10/10/2013	0.64	1.32	52.92	4326	90.4075%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258962.1338
5573540	7/16/2012	0.63	1.32	52.90	4327	90.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258897.5929
5573540	9/25/1995	0.63	1.32	52.90	4327	90.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258897.5929
5573540	9/29/1996	0.63	1.32	52.90	4327	90.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258897.5929
5573540	9/1/2007	0.63	1.32	52.90	4327	90.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258897.5929
5573540	9/3/2007	0.63	1.32	52.90	4327	90.4284%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258897.5929
5573540	9/9/2005	0.62	1.32	52.89	4332	90.5329%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258833.052
5573540	10/31/2012	0.62	1.32	52.89	4332	90.5329%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258833.052
5573540	6/23/2012	0.61	1.32	52.88	4334	90.5747%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258768.5111
5573540	7/1/2012	0.6	1.32	52.86	4335	90.5956%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258703.9702
5573540	8/18/2012	0.6	1.32	52.86	4335	90.5956%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258703.9702
5573540	9/11/2005	0.6	1.32	52.86	4335	90.5956%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258703.9702
5573540	10/29/2013	0.6	1.32	52.86	4335	90.5956%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258703.9702
5573540	9/10/2005	0.59	1.32	52.85	4339	90.6792%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258639.4293
5573540	10/7/2002	0.59	1.32	52.85	4339	90.6792%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258639.4293
5573540	7/23/2002	0.58	1.32	52.84	4341	90.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258574.8884
5573540	9/6/2012	0.58	1.32	52.84	4341	90.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258574.8884
5573540	9/23/2012	0.58	1.32	52.84	4341	90.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258574.8884
5573540	10/2/2005	0.58	1.32	52.84	4341	90.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258574.8884
5573540	10/21/2012	0.58	1.32	52.84	4341	90.7210%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258574.8884
5573540	10/22/2011	0.57	1.32	52.83	4346	90.8255%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258510.3475
5573540	7/24/1991	0.56	1.32	52.81	4347	90.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258445.8066
5573540	8/13/1991	0.56	1.32	52.81	4347	90.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258445.8066
5573540	8/7/2012	0.56	1.32	52.81	4347	90.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258445.8066
5573540	9/11/1991	0.56	1.32	52.81	4347	90.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258445.8066
5573540	10/11/2011	0.56	1.32	52.81	4347	90.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258445.8066
5573540	10/4/2012	0.56	1.32	52.81	4347	90.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258445.8066
5573540	10/17/2013	0.56	1.32	52.81	4347	90.8464%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258445.8066
5573540	10/6/2005	0.55	1.32	52.80	4354	90.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258381.2657
5573540	10/11/2005	0.55	1.32	52.80	4354	90.9927%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258381.2657
5573540	7/26/2002	0.54	1.32	52.79	4356	91.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258316.7248
5573540	9/27/1998	0.54	1.32	52.79	4356	91.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258316.7248
5573540	9/19/2012	0.54	1.32	52.79	4356	91.0345%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258316.7248
5573540	7/4/2012	0.53	1.32	52.77	4359	91.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258252.1839
5573540	8/30/2007	0.53	1.32	52.77	4359	91.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258252.1839
5573540	10/28/2013	0.53	1.32	52.77	4359	91.0972%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258252.1839
5573540	8/3/1994	0.52	1.32	52.76	4362	91.1599%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258187.643
5573540	8/31/1998	0.52	1.32	52.76	4362	91.1599%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258187.643
5573540	8/31/2007	0.52	1.32	52.76	4362	91.1599%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258187.643
5573540	6/29/2012	0.51	1.32	52.75	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258123.1021
5573540	7/2/2012	0.51	1.32	52.75	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258123.1021
5573540	10/5/1996	0.51	1.32	52.75	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258123.1021
5573540	10/7/2012	0.51	1.32	52.75	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258123.1021
5573540	10/29/2012	0.51	1.32	52.75	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258123.1021
5573540	10/18/2013	0.51	1.32	52.75	4365	91.2226%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258123.1021

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/17/1991	0.5	1.32	52.73	4371	91.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258058.5612
5573540	8/26/1994	0.5	1.32	52.73	4371	91.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258058.5612
5573540	9/27/1995	0.5	1.32	52.73	4371	91.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258058.5612
5573540	10/10/2011	0.5	1.32	52.73	4371	91.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258058.5612
5573540	10/16/2011	0.5	1.32	52.73	4371	91.3480%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	258058.5612
5573540	5/2/2003	0.49	1.32	52.72	4376	91.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257994.0203
5573540	10/4/2011	0.49	1.32	52.72	4376	91.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257994.0203
5573540	10/30/2012	0.49	1.32	52.72	4376	91.4525%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257994.0203
5573540	9/10/2012	0.48	1.32	52.71	4379	91.5152%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257929.4794
5573540	10/5/2005	0.48	1.32	52.71	4379	91.5152%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257929.4794
5573540	10/27/2013	0.48	1.32	52.71	4379	91.5152%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257929.4794
5573540	7/19/2002	0.47	1.32	52.69	4382	91.5778%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257864.9385
5573540	9/30/2011	0.47	1.32	52.69	4382	91.5778%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257864.9385
5573540	8/11/2002	0.46	1.32	52.68	4384	91.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257800.3976
5573540	9/20/1991	0.46	1.32	52.68	4384	91.6196%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257800.3976
5573540	8/26/1998	0.45	1.32	52.67	4386	91.6614%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257735.8567
5573540	8/19/1991	0.42	1.32	52.63	4387	91.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257542.234
5573540	9/19/1995	0.42	1.32	52.63	4387	91.6823%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257542.234
5573540	5/8/2001	0.41	1.32	52.61	4389	91.7241%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257477.6931
5573540	9/23/1996	0.41	1.32	52.61	4389	91.7241%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257477.6931
5573540	10/1/2011	0.41	1.32	52.61	4389	91.7241%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257477.6931
5573540	10/23/2011	0.41	1.32	52.61	4389	91.7241%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257477.6931
5573540	7/25/1991	0.4	1.32	52.60	4393	91.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257413.1522
5573540	7/5/2012	0.4	1.32	52.60	4393	91.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257413.1522
5573540	7/6/2012	0.4	1.32	52.60	4393	91.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257413.1522
5573540	10/30/2000	0.4	1.32	52.60	4393	91.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257413.1522
5573540	10/2/2011	0.4	1.32	52.60	4393	91.8077%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257413.1522
5573540	9/7/1991	0.39	1.32	52.59	4398	91.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257348.6113
5573540	10/25/2005	0.39	1.32	52.59	4398	91.9122%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257348.6113
5573540	8/15/2012	0.38	1.32	52.57	4400	91.9540%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257284.0704
5573540	10/6/2002	0.38	1.32	52.57	4400	91.9540%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257284.0704
5573540	7/13/2002	0.37	1.32	52.56	4402	91.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257219.5295
5573540	8/14/1991	0.37	1.32	52.56	4402	91.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257219.5295
5573540	9/7/1995	0.37	1.32	52.56	4402	91.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257219.5295
5573540	10/8/2012	0.37	1.32	52.56	4402	91.9958%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257219.5295
5573540	9/17/1995	0.36	1.32	52.55	4406	92.0794%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257154.9886
5573540	7/24/2002	0.35	1.32	52.54	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257090.4477
5573540	8/31/2012	0.35	1.32	52.54	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257090.4477
5573540	9/25/1994	0.35	1.32	52.54	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257090.4477
5573540	9/26/1994	0.35	1.32	52.54	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257090.4477
5573540	9/26/1998	0.35	1.32	52.54	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257090.4477
5573540	10/3/2002	0.35	1.32	52.54	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257090.4477
5573540	10/26/2005	0.35	1.32	52.54	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257090.4477
5573540	10/3/2011	0.35	1.32	52.54	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257090.4477
5573540	10/9/2012	0.35	1.32	52.54	4407	92.1003%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257090.4477
5573540	7/28/2002	0.34	1.32	52.52	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257025.9068

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/2/1991	0.34	1.32	52.52	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257025.9068
5573540	8/20/1991	0.34	1.32	52.52	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257025.9068
5573540	9/8/1994	0.34	1.32	52.52	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257025.9068
5573540	10/23/1992	0.34	1.32	52.52	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257025.9068
5573540	10/20/2013	0.34	1.32	52.52	4416	92.2884%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	257025.9068
5573540	6/30/2012	0.33	1.32	52.51	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256961.3659
5573540	7/26/1991	0.33	1.32	52.51	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256961.3659
5573540	7/29/1991	0.33	1.32	52.51	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256961.3659
5573540	8/16/1991	0.33	1.32	52.51	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256961.3659
5573540	8/20/1995	0.33	1.32	52.51	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256961.3659
5573540	8/8/2012	0.33	1.32	52.51	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256961.3659
5573540	8/26/2012	0.33	1.32	52.51	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256961.3659
5573540	9/26/1995	0.33	1.32	52.51	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256961.3659
5573540	10/24/2011	0.33	1.32	52.51	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256961.3659
5573540	10/29/2011	0.33	1.32	52.51	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256961.3659
5573540	10/26/2013	0.33	1.32	52.51	4422	92.4138%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256961.3659
5573540	7/27/1991	0.32	1.32	52.50	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256896.825
5573540	7/10/2012	0.32	1.32	52.50	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256896.825
5573540	8/3/1991	0.32	1.32	52.50	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256896.825
5573540	8/15/1991	0.32	1.32	52.50	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256896.825
5573540	8/28/1995	0.32	1.32	52.50	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256896.825
5573540	9/18/1995	0.32	1.32	52.50	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256896.825
5573540	10/30/2011	0.32	1.32	52.50	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256896.825
5573540	10/10/2012	0.32	1.32	52.50	4433	92.6437%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256896.825
5573540	10/10/1994	0.31	1.32	52.48	4441	92.8109%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256832.2841
5573540	7/24/1994	0.3	1.32	52.47	4442	92.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256767.7432
5573540	7/17/2012	0.3	1.32	52.47	4442	92.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256767.7432
5573540	8/28/1994	0.3	1.32	52.47	4442	92.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256767.7432
5573540	9/28/2012	0.3	1.32	52.47	4442	92.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256767.7432
5573540	10/28/2011	0.3	1.32	52.47	4442	92.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256767.7432
5573540	10/23/2013	0.3	1.32	52.47	4442	92.8318%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256767.7432
5573540	7/25/2002	0.29	1.32	52.46	4448	92.9572%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256703.2023
5573540	9/12/1991	0.29	1.32	52.46	4448	92.9572%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256703.2023
5573540	7/28/1991	0.28	1.32	52.44	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256638.6614
5573540	8/1/1991	0.28	1.32	52.44	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256638.6614
5573540	8/18/1991	0.28	1.32	52.44	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256638.6614
5573540	8/21/1991	0.28	1.32	52.44	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256638.6614
5573540	9/14/2012	0.28	1.32	52.44	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256638.6614
5573540	10/25/2011	0.28	1.32	52.44	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256638.6614
5573540	10/24/2013	0.28	1.32	52.44	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256638.6614
5573540	10/25/2013	0.28	1.32	52.44	4450	92.9990%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256638.6614
5573540	9/20/2002	0.27	1.32	52.43	4458	93.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256574.1205
5573540	9/20/2012	0.27	1.32	52.43	4458	93.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256574.1205
5573540	9/24/2012	0.27	1.32	52.43	4458	93.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256574.1205
5573540	10/11/2012	0.27	1.32	52.43	4458	93.1661%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256574.1205
5573540	10/30/1994	0.26	1.32	52.42	4462	93.2497%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256509.5796

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	8/23/1991	0.25	1.32	52.40	4463	93.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256445.0387
5573540	9/10/2002	0.25	1.32	52.40	4463	93.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256445.0387
5573540	10/27/2011	0.25	1.32	52.40	4463	93.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256445.0387
5573540	10/21/2013	0.25	1.32	52.40	4463	93.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256445.0387
5573540	10/22/2013	0.25	1.32	52.40	4463	93.2706%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256445.0387
5573540	7/30/1991	0.24	1.32	52.39	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256380.4978
5573540	7/31/1991	0.24	1.32	52.39	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256380.4978
5573540	8/22/1991	0.24	1.32	52.39	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256380.4978
5573540	9/2/1994	0.24	1.32	52.39	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256380.4978
5573540	9/27/1994	0.24	1.32	52.39	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256380.4978
5573540	9/11/2012	0.24	1.32	52.39	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256380.4978
5573540	10/27/2005	0.24	1.32	52.39	4468	93.3751%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256380.4978
5573540	8/4/1991	0.23	1.32	52.38	4475	93.5214%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256315.9569
5573540	9/22/1991	0.23	1.32	52.38	4475	93.5214%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256315.9569
5573540	9/15/2012	0.23	1.32	52.38	4475	93.5214%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256315.9569
5573540	7/15/2002	0.22	1.32	52.36	4478	93.5841%	Fecal_coliform	125	cfu/100mL	200	283.2	160157.135	256251.416
5573540	10/29/1994	0.22	1.32	52.36	4478	93.5841%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256251.416
5573540	7/20/2002	0.21	1.32	52.35	4480	93.6259%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256186.8751
5573540	8/19/2012	0.21	1.32	52.35	4480	93.6259%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256186.8751
5573540	9/25/1998	0.21	1.32	52.35	4480	93.6259%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256186.8751
5573540	9/22/2005	0.21	1.32	52.35	4480	93.6259%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256186.8751
5573540	7/25/1994	0.2	1.32	52.34	4484	93.7095%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256122.3342
5573540	7/18/2012	0.2	1.32	52.34	4484	93.7095%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256122.3342
5573540	8/24/1991	0.2	1.32	52.34	4484	93.7095%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256122.3342
5573540	8/9/2012	0.2	1.32	52.34	4484	93.7095%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256122.3342
5573540	7/29/2002	0.19	1.32	52.32	4488	93.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256057.7933
5573540	8/3/2002	0.19	1.32	52.32	4488	93.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256057.7933
5573540	10/26/2011	0.19	1.32	52.32	4488	93.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256057.7933
5573540	10/12/2012	0.19	1.32	52.32	4488	93.7931%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	256057.7933
5573540	8/4/2002	0.18	1.32	52.31	4492	93.8767%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255993.2524
5573540	9/28/1991	0.17	1.32	52.30	4493	93.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255928.7115
5573540	9/15/2002	0.17	1.32	52.30	4493	93.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255928.7115
5573540	9/16/2012	0.17	1.32	52.30	4493	93.8976%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255928.7115
5573540	7/19/2012	0.16	1.32	52.28	4496	93.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255864.1706
5573540	8/6/1994	0.16	1.32	52.28	4496	93.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255864.1706
5573540	9/4/2012	0.16	1.32	52.28	4496	93.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255864.1706
5573540	9/12/2012	0.16	1.32	52.28	4496	93.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255864.1706
5573540	9/29/2012	0.16	1.32	52.28	4496	93.9603%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255864.1706
5573540	7/11/2012	0.15	1.32	52.27	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255799.6297
5573540	7/13/2012	0.15	1.32	52.27	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255799.6297
5573540	8/21/1994	0.15	1.32	52.27	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255799.6297
5573540	9/13/1991	0.15	1.32	52.27	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255799.6297
5573540	9/28/1994	0.15	1.32	52.27	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255799.6297
5573540	9/29/1994	0.15	1.32	52.27	4501	94.0648%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255799.6297
5573540	7/12/2012	0.14	1.32	52.26	4507	94.1902%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255735.0888
5573540	7/20/2012	0.14	1.32	52.26	4507	94.1902%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255735.0888

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/11/1995	0.14	1.32	52.26	4507	94.1902%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255735.0888
5573540	9/13/2012	0.14	1.32	52.26	4507	94.1902%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255735.0888
5573540	8/28/2012	0.13	1.32	52.24	4511	94.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255670.5479
5573540	9/8/1991	0.13	1.32	52.24	4511	94.2738%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255670.5479
5573540	7/21/2012	0.12	1.32	52.23	4513	94.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255606.007
5573540	8/15/1994	0.12	1.32	52.23	4513	94.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255606.007
5573540	9/6/1995	0.12	1.32	52.23	4513	94.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255606.007
5573540	9/30/2012	0.12	1.32	52.23	4513	94.3156%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255606.007
5573540	7/31/2002	0.11	1.32	52.22	4517	94.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255541.4661
5573540	8/10/2012	0.11	1.32	52.22	4517	94.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255541.4661
5573540	8/20/2012	0.11	1.32	52.22	4517	94.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255541.4661
5573540	9/30/1991	0.11	1.32	52.22	4517	94.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255541.4661
5573540	10/29/2000	0.11	1.32	52.22	4517	94.3992%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255541.4661
5573540	5/1/2003	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	7/26/1994	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	7/14/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	7/21/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	7/30/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	7/3/2003	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	7/4/2003	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	7/5/2003	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	7/6/2003	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	7/7/2003	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	8/5/1991	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	8/17/1993	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	8/1/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	8/2/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	8/5/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	8/6/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	8/7/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	8/8/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	8/9/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	8/10/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	9/30/1994	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	9/11/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	9/12/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	9/13/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	9/14/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	9/16/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	9/21/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	9/22/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	9/23/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	9/24/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	9/25/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	9/26/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	9/27/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	9/28/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	9/29/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	9/30/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	10/28/1994	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	10/22/2000	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	10/25/2000	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	10/26/2000	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	10/27/2000	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	10/28/2000	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	10/31/2000	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	10/1/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	10/2/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	145	cfu/100mL	200	283.2	185220.7708	255476.9252
5573540	10/5/2002	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	10/12/2005	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	10/13/2005	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	10/14/2005	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	10/15/2005	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	10/16/2005	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	10/17/2005	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	10/18/2005	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	10/1/2012	0.1	1.32	52.21	4522	94.5037%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255476.9252
5573540	7/22/2012	0.09	1.32	52.19	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255412.3843
5573540	7/31/2012	0.09	1.32	52.19	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255412.3843
5573540	8/25/1991	0.09	1.32	52.19	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255412.3843
5573540	8/1/2012	0.09	1.32	52.19	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255412.3843
5573540	8/3/2012	0.09	1.32	52.19	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255412.3843
5573540	8/4/2012	0.09	1.32	52.19	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255412.3843
5573540	10/27/1994	0.09	1.32	52.19	4576	95.6322%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255412.3843
5573540	7/24/2012	0.08	1.32	52.18	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255347.8434
5573540	8/23/2012	0.08	1.32	52.18	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255347.8434
5573540	9/16/1995	0.08	1.32	52.18	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255347.8434
5573540	9/10/1996	0.08	1.32	52.18	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255347.8434
5573540	10/4/1996	0.08	1.32	52.18	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255347.8434
5573540	10/2/2012	0.08	1.32	52.18	4583	95.7785%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255347.8434
5573540	7/25/2012	0.07	1.32	52.17	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255283.3025
5573540	7/30/2012	0.07	1.32	52.17	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255283.3025
5573540	8/26/1991	0.07	1.32	52.17	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255283.3025
5573540	8/2/2012	0.07	1.32	52.17	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255283.3025
5573540	9/14/1991	0.07	1.32	52.17	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255283.3025
5573540	9/5/1995	0.07	1.32	52.17	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255283.3025
5573540	10/1/1991	0.07	1.32	52.17	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255283.3025
5573540	10/1/1994	0.07	1.32	52.17	4589	95.9039%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255283.3025
5573540	7/23/2012	0.06	1.32	52.15	4597	96.0711%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255218.7616
5573540	7/29/2012	0.06	1.32	52.15	4597	96.0711%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255218.7616
5573540	8/11/2012	0.06	1.32	52.15	4597	96.0711%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255218.7616
5573540	8/12/2012	0.06	1.32	52.15	4597	96.0711%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255218.7616

Fecal Coliform Load Duration Curve Calculations
(E-16)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	100mL/CF	Actual Load (million colonies/day)	Allowable Load (million colonies/day)
5573540	10/24/1994	0.06	1.32	52.15	4597	96.0711%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255218.7616
5573540	7/26/2012	0.05	1.32	52.14	4602	96.1755%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255154.2207
5573540	7/27/2012	0.05	1.32	52.14	4602	96.1755%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255154.2207
5573540	9/9/1994	0.05	1.32	52.14	4602	96.1755%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255154.2207
5573540	7/28/2012	0.04	1.32	52.13	4605	96.2382%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255089.6798
5573540	8/21/2012	0.04	1.32	52.13	4605	96.2382%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255089.6798
5573540	8/24/2012	0.04	1.32	52.13	4605	96.2382%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255089.6798
5573540	8/29/1995	0.03	1.32	52.11	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255025.1389
5573540	8/19/1996	0.03	1.32	52.11	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255025.1389
5573540	8/22/2012	0.03	1.32	52.11	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255025.1389
5573540	9/25/1991	0.03	1.32	52.11	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255025.1389
5573540	9/29/1991	0.03	1.32	52.11	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255025.1389
5573540	10/2/1994	0.03	1.32	52.11	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255025.1389
5573540	10/19/1994	0.03	1.32	52.11	4608	96.3009%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	255025.1389
5573540	9/3/1994	0.02	1.32	52.10	4615	96.4472%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254960.598
5573540	9/22/1996	0.02	1.32	52.10	4615	96.4472%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254960.598
5573540	10/25/1994	0.02	1.32	52.10	4615	96.4472%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254960.598
5573540	8/3/1996	0.01	1.32	52.09	4618	96.5099%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254896.0571
5573540	9/9/1991	0.01	1.32	52.09	4618	96.5099%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254896.0571
5573540	9/23/1991	0.01	1.32	52.09	4618	96.5099%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254896.0571
5573540	10/18/1994	0.01	1.32	52.09	4618	96.5099%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254896.0571
5573540	7/27/1994	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	7/28/1994	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	7/29/1994	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	7/30/1994	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	7/31/1994	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	7/15/1995	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	7/16/1995	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	7/17/1995	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	7/18/1995	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	7/19/1995	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	7/20/1995	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	7/21/1995	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	7/22/1995	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	7/30/1995	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	7/31/1995	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	8/7/1993	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	8/18/1993	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	8/1/1994	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	8/7/1994	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	8/8/1994	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	8/9/1994	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	8/10/1994	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	8/11/1994	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	8/16/1994	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162
5573540	8/17/1994	0	1.32	52.07	4622	96.5935%	Fecal_coliform	--	cfu/100mL	200	283.2	#VALUE!	254831.5162

Middle Sangamon River (ERA-01)

TSS

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	9/23/1993	7460	7460.00	0.65	1000.00	73	0.7625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	124522.1962
5592050	12/27/2015	6480	6480.00	0.65	4230.29	1	0.0104%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	526764.9611
5592050	6/6/2001	4650	4650.00	0.65	3035.62	2	0.0209%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	378002.6341
5592050	4/29/1996	4330	4330.00	0.65	2826.72	3	0.0313%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	351989.5496
5592050	5/12/2002	4180	4180.00	0.65	2728.80	4	0.0418%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	339795.9163
5592050	6/19/2015	4110	4110.00	0.65	2683.10	5	0.0522%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	334105.554
5592050	5/16/1990	3810	3810.00	0.65	2487.25	6	0.0627%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309718.2873
5592050	5/13/1990	3490	3490.00	0.65	2278.35	7	0.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283705.2028
5592050	5/13/2002	3260	3260.00	0.65	2128.20	8	0.0836%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	265008.2983
5592050	12/28/2008	3210	3210.00	0.65	2095.56	9	0.0940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260943.7539
5592050	4/12/1994	3110	3110.00	0.65	2030.28	10	0.1044%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252814.665
5592050	12/30/1990	3100	3100.00	0.65	2023.75	11	0.1149%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252001.7561
5592050	12/28/2015	3020	3020.00	0.65	1971.52	12	0.1253%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245498.485
5592050	6/24/2010	3000	3000.00	0.65	1958.47	13	0.1358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243872.6672
5592050	10/5/2000	2900	2900.00	0.65	1893.19	14	0.1462%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235743.5783
5592050	4/19/2013	2900	2900.00	0.65	1893.19	14	0.1462%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235743.5783
5592050	9/15/2008	2800	2800.00	0.65	1827.90	16	0.1671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227614.4894
5592050	12/29/1990	2710	2710.00	0.65	1769.15	17	0.1776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	220298.3094
5592050	1/13/2005	2640	2640.00	0.65	1723.45	18	0.1880%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	214607.9471
5592050	4/18/2013	2550	2550.00	0.65	1664.70	19	0.1985%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	207291.7671
5592050	12/25/2009	2540	2540.00	0.65	1658.17	20	0.2089%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206478.8582
5592050	1/5/2005	2530	2530.00	0.65	1651.64	21	0.2193%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	205665.9493
5592050	6/20/2015	2530	2530.00	0.65	1651.64	21	0.2193%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	205665.9493
5592050	9/3/2010	2510	2510.00	0.65	1638.58	23	0.2402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	204040.1315
5592050	5/7/2002	2450	2450.00	0.65	1599.42	24	0.2507%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	199162.6782
5592050	5/17/1995	2430	2430.00	0.65	1586.36	25	0.2611%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	197536.8604
5592050	6/13/2002	2430	2430.00	0.65	1586.36	25	0.2611%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	197536.8604
5592050	2/6/2008	2430	2430.00	0.65	1586.36	25	0.2611%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	197536.8604
5592050	5/10/1996	2360	2360.00	0.65	1540.66	28	0.2925%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	191846.4982
5592050	5/6/2002	2260	2260.00	0.65	1475.38	29	0.3029%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	183717.4093
5592050	5/11/1996	2250	2250.00	0.65	1468.85	30	0.3133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	182904.5004
5592050	5/27/1996	2200	2200.00	0.65	1436.21	31	0.3238%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178839.9559
5592050	12/7/2004	2190	2190.00	0.65	1429.68	32	0.3342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178027.047
5592050	4/7/2006	2140	2140.00	0.65	1397.04	33	0.3447%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	173962.5026
5592050	4/28/2002	2120	2120.00	0.65	1383.98	34	0.3551%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	172336.6848
5592050	5/9/1995	2100	2100.00	0.65	1370.93	35	0.3656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170710.867
5592050	5/14/2009	2080	2080.00	0.65	1357.87	36	0.3760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	169085.0492
5592050	12/29/2015	2030	2030.00	0.65	1325.23	37	0.3865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	165020.5048
5592050	10/31/2009	2010	2010.00	0.65	1312.17	38	0.3969%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	163394.687
5592050	5/17/1990	1970	1970.00	0.65	1286.06	39	0.4074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	160143.0515
5592050	5/8/1996	1960	1960.00	0.65	1279.53	40	0.4178%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	159330.1426
5592050	9/3/1993	1940	1940.00	0.65	1266.48	41	0.4282%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	157704.3248
5592050	6/2/1999	1920	1920.00	0.65	1253.42	42	0.4387%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	156078.507
5592050	1/6/2005	1920	1920.00	0.65	1253.42	42	0.4387%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	156078.507

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/6/2006	1910	1910.00	0.65	1246.89	44	0.4596%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	155265.5981
5592050	5/28/2013	1900	1900.00	0.65	1240.36	45	0.4700%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154452.6892
5592050	2/27/1997	1880	1880.00	0.65	1227.31	46	0.4805%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	152826.8714
5592050	2/11/2009	1880	1880.00	0.65	1227.31	46	0.4805%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	152826.8714
5592050	2/20/2014	1850	1850.00	0.65	1207.72	48	0.5014%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	150388.1448
5592050	1/4/2004	1830	1830.00	0.65	1194.67	49	0.5118%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	148762.327
5592050	1/15/2007	1830	1830.00	0.65	1194.67	49	0.5118%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	148762.327
5592050	6/7/2001	1800	1800.00	0.65	1175.08	51	0.5327%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146323.6003
5592050	2/25/2007	1800	1800.00	0.65	1175.08	51	0.5327%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146323.6003
5592050	5/9/1996	1780	1780.00	0.65	1162.02	53	0.5536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	144697.7825
5592050	9/1/2003	1770	1770.00	0.65	1155.50	54	0.5640%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	143884.8736
5592050	4/11/1994	1760	1760.00	0.65	1148.97	55	0.5745%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	143071.9647
5592050	4/20/2011	1760	1760.00	0.65	1148.97	55	0.5745%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	143071.9647
5592050	4/29/1994	1740	1740.00	0.65	1135.91	57	0.5954%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141446.147
5592050	5/28/2002	1730	1730.00	0.65	1129.38	58	0.6058%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	140633.2381
5592050	10/6/2000	1720	1720.00	0.65	1122.85	59	0.6163%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	139820.3292
5592050	9/24/1993	1710	1710.00	0.65	1116.33	60	0.6267%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	139007.4203
5592050	5/18/1995	1710	1710.00	0.65	1116.33	60	0.6267%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	139007.4203
5592050	2/7/1999	1680	1680.00	0.65	1096.74	62	0.6476%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	136568.6936
5592050	9/15/1993	1660	1660.00	0.65	1083.69	63	0.6580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	134942.8758
5592050	1/28/1994	1640	1640.00	0.65	1070.63	64	0.6685%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	133317.0581
5592050	3/20/1998	1640	1640.00	0.65	1070.63	64	0.6685%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	133317.0581
5592050	5/27/2013	1630	1630.00	0.65	1064.10	66	0.6894%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	132504.1492
5592050	2/21/2014	1590	1590.00	0.65	1037.99	67	0.6998%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129252.5136
5592050	1/4/1993	1570	1570.00	0.65	1024.93	68	0.7103%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	127626.6958
5592050	10/30/2009	1570	1570.00	0.65	1024.93	68	0.7103%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	127626.6958
5592050	1/5/2004	1560	1560.00	0.65	1018.40	70	0.7311%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	126813.7869
5592050	3/12/2006	1560	1560.00	0.65	1018.40	70	0.7311%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	126813.7869
5592050	3/28/1998	1540	1540.00	0.65	1005.35	72	0.7520%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	125187.9692
5592050	4/28/1994	1510	1510.00	0.65	985.76	74	0.7729%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	122749.2425
5592050	9/14/2008	1510	1510.00	0.65	985.76	74	0.7729%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	122749.2425
5592050	5/9/2002	1500	1500.00	0.65	979.23	76	0.7938%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121936.3336
5592050	3/19/2008	1490	1490.00	0.65	972.71	77	0.8043%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121123.4247
5592050	4/28/2011	1470	1470.00	0.65	959.65	78	0.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	119497.6069
5592050	2/28/2011	1460	1460.00	0.65	953.12	79	0.8252%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	118684.698
5592050	4/25/1993	1450	1450.00	0.65	946.59	80	0.8356%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	117871.7891
5592050	1/30/2001	1440	1440.00	0.65	940.06	81	0.8460%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	117058.8802
5592050	1/22/1999	1430	1430.00	0.65	933.54	82	0.8565%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	116245.9714
5592050	1/5/1993	1420	1420.00	0.65	927.01	83	0.8669%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	115433.0625
5592050	4/1/2008	1410	1410.00	0.65	920.48	84	0.8774%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	114620.1536
5592050	11/14/1993	1380	1380.00	0.65	900.90	85	0.8878%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	112181.4269
5592050	2/25/2001	1370	1370.00	0.65	894.37	86	0.8983%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	111368.518
5592050	5/8/2002	1370	1370.00	0.65	894.37	86	0.8983%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	111368.518
5592050	4/30/2009	1370	1370.00	0.65	894.37	86	0.8983%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	111368.518

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/24/2009	1370	1370.00	0.65	894.37	86	0.8983%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	111368.518
5592050	11/17/1993	1360	1360.00	0.65	887.84	90	0.9400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	110555.6091
5592050	4/28/1996	1350	1350.00	0.65	881.31	91	0.9505%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	109742.7002
5592050	5/26/1996	1350	1350.00	0.65	881.31	91	0.9505%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	109742.7002
5592050	12/21/1990	1340	1340.00	0.65	874.78	93	0.9714%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	108929.7913
5592050	11/15/1993	1340	1340.00	0.65	874.78	93	0.9714%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	108929.7913
5592050	5/28/1996	1330	1330.00	0.65	868.25	95	0.9923%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	108116.8825
5592050	4/26/2011	1320	1320.00	0.65	861.73	96	1.0027%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	107303.9736
5592050	5/26/2011	1320	1320.00	0.65	861.73	96	1.0027%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	107303.9736
5592050	7/5/2000	1310	1310.00	0.65	855.20	98	1.0236%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	106491.0647
5592050	5/8/2009	1300	1300.00	0.65	848.67	99	1.0341%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105678.1558
5592050	11/18/2009	1300	1300.00	0.65	848.67	99	1.0341%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105678.1558
5592050	3/5/2011	1300	1300.00	0.65	848.67	99	1.0341%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105678.1558
5592050	6/13/1994	1270	1270.00	0.65	829.08	102	1.0654%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103239.4291
5592050	1/23/1999	1270	1270.00	0.65	829.08	102	1.0654%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103239.4291
5592050	4/30/1996	1260	1260.00	0.65	822.56	104	1.0863%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	102426.5202
5592050	3/7/1995	1240	1240.00	0.65	809.50	105	1.0967%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	100800.7024
5592050	3/21/1998	1240	1240.00	0.65	809.50	105	1.0967%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	100800.7024
5592050	6/22/2010	1240	1240.00	0.65	809.50	105	1.0967%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	100800.7024
5592050	12/22/1990	1230	1230.00	0.65	802.97	108	1.1281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	99987.79355
5592050	1/14/2005	1230	1230.00	0.65	802.97	108	1.1281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	99987.79355
5592050	11/17/2009	1230	1230.00	0.65	802.97	108	1.1281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	99987.79355
5592050	12/31/1990	1220	1220.00	0.65	796.44	111	1.1594%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	99174.88465
5592050	6/1/2013	1220	1220.00	0.65	796.44	111	1.1594%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	99174.88465
5592050	12/8/2004	1190	1190.00	0.65	776.86	113	1.1803%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	96736.15798
5592050	1/27/1994	1180	1180.00	0.65	770.33	114	1.1907%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	95923.24909
5592050	3/5/2004	1180	1180.00	0.65	770.33	114	1.1907%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	95923.24909
5592050	5/13/2009	1180	1180.00	0.65	770.33	114	1.1907%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	95923.24909
5592050	3/26/2004	1170	1170.00	0.65	763.80	117	1.2221%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	95110.3402
5592050	6/29/2015	1170	1170.00	0.65	763.80	117	1.2221%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	95110.3402
5592050	5/19/1995	1130	1130.00	0.65	737.69	119	1.2429%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	91858.70464
5592050	12/27/2008	1130	1130.00	0.65	737.69	119	1.2429%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	91858.70464
5592050	4/21/2002	1120	1120.00	0.65	731.16	121	1.2638%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	91045.79575
5592050	4/11/2008	1120	1120.00	0.65	731.16	121	1.2638%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	91045.79575
5592050	1/21/1993	1100	1100.00	0.65	718.10	123	1.2847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89419.97797
5592050	2/12/2009	1100	1100.00	0.65	718.10	123	1.2847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89419.97797
5592050	7/19/1993	1090	1090.00	0.65	711.58	125	1.3056%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	88607.06908
5592050	6/13/1998	1090	1090.00	0.65	711.58	125	1.3056%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	88607.06908
5592050	3/4/1993	1080	1080.00	0.65	705.05	127	1.3265%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	87794.16019
5592050	5/3/1998	1080	1080.00	0.65	705.05	127	1.3265%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	87794.16019
5592050	2/8/1999	1080	1080.00	0.65	705.05	127	1.3265%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	87794.16019
5592050	5/10/2013	1070	1070.00	0.65	698.52	130	1.3578%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	86981.2513
5592050	5/2/2002	1060	1060.00	0.65	691.99	131	1.3683%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	86168.3424
5592050	6/5/2001	1050	1050.00	0.65	685.46	132	1.3787%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85355.43351

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	2/14/2005	1050	1050.00	0.65	685.46	132	1.3787%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85355.43351
5592050	12/4/1993	1040	1040.00	0.65	678.94	134	1.3996%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	84542.52462
5592050	1/16/1991	1020	1020.00	0.65	665.88	135	1.4101%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	82916.70684
5592050	11/18/2003	1010	1010.00	0.65	659.35	136	1.4205%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	82103.79795
5592050	5/16/2009	1000	1000.00	0.65	652.82	137	1.4310%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81290.88906
5592050	4/27/2002	995	995.00	0.65	649.56	138	1.4414%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80884.43462
5592050	4/29/2014	995	995.00	0.65	649.56	138	1.4414%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80884.43462
5592050	4/13/1994	986	986.00	0.65	643.68	140	1.4623%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80152.81661
5592050	4/22/2002	983	983.00	0.65	641.72	141	1.4727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	79908.94395
5592050	2/1/2002	979	979.00	0.65	639.11	142	1.4832%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	79583.78039
5592050	6/20/1990	972	972.00	0.65	634.54	143	1.4936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	79014.74417
5592050	5/10/1995	970	970.00	0.65	633.24	144	1.5041%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78852.16239
5592050	4/25/2002	969	969.00	0.65	632.58	145	1.5145%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78770.8715
5592050	12/26/2015	969	969.00	0.65	632.58	145	1.5145%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78770.8715
5592050	6/20/2009	967	967.00	0.65	631.28	147	1.5354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78608.28972
5592050	5/1/2012	953	953.00	0.65	622.14	148	1.5459%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77470.21728
5592050	6/25/2010	949	949.00	0.65	619.53	149	1.5563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77145.05372
5592050	6/23/2010	927	927.00	0.65	605.17	150	1.5667%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	75356.65416
5592050	5/1/2009	926	926.00	0.65	604.51	151	1.5772%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	75275.36327
5592050	6/12/2002	924	924.00	0.65	603.21	152	1.5876%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	75112.78149
5592050	12/17/2001	920	920.00	0.65	600.60	153	1.5981%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74787.61794
5592050	2/5/2008	919	919.00	0.65	599.94	154	1.6085%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74706.32705
5592050	2/4/1997	914	914.00	0.65	596.68	155	1.6190%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74299.8726
5592050	6/26/2011	909	909.00	0.65	593.42	156	1.6294%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73893.41816
5592050	4/4/1998	905	905.00	0.65	590.80	157	1.6399%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73568.2546
5592050	1/14/1995	902	902.00	0.65	588.85	158	1.6503%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73324.38193
5592050	5/14/2002	897	897.00	0.65	585.58	159	1.6607%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72917.92749
5592050	3/14/1997	889	889.00	0.65	580.36	160	1.6712%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72267.60038
5592050	5/28/1995	888	888.00	0.65	579.71	161	1.6816%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72186.30949
5592050	4/30/1994	882	882.00	0.65	575.79	162	1.6921%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	71698.56415
5592050	11/26/1993	871	871.00	0.65	568.61	163	1.7025%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70804.36437
5592050	6/15/2010	870	870.00	0.65	567.96	164	1.7130%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70723.07348
5592050	2/17/2011	866	866.00	0.65	565.34	165	1.7234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70397.90993
5592050	6/8/2015	857	857.00	0.65	559.47	166	1.7339%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69666.29193
5592050	4/17/2013	855	855.00	0.65	558.16	167	1.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69503.71015
5592050	2/9/2001	851	851.00	0.65	555.55	168	1.7548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69178.54659
5592050	5/7/1994	848	848.00	0.65	553.59	169	1.7652%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68934.67392
5592050	5/23/1998	848	848.00	0.65	553.59	169	1.7652%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68934.67392
5592050	3/5/1993	845	845.00	0.65	551.63	171	1.7861%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68690.80126
5592050	1/8/1998	843	843.00	0.65	550.33	172	1.7965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68528.21948
5592050	4/27/2011	838	838.00	0.65	547.07	173	1.8070%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68121.76503
5592050	9/22/1993	835	835.00	0.65	545.11	174	1.8174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67877.89237
5592050	5/14/1990	828	828.00	0.65	540.54	175	1.8279%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67308.85614
5592050	12/24/2008	826	826.00	0.65	539.23	176	1.8383%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67146.27436

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/25/2000	823	823.00	0.65	537.27	177	1.8488%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	66902.4017
5592050	6/19/1998	818	818.00	0.65	534.01	178	1.8592%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	66495.94725
5592050	3/27/2004	817	817.00	0.65	533.36	179	1.8696%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	66414.65636
5592050	4/10/1994	803	803.00	0.65	524.22	180	1.8801%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65276.58392
5592050	12/2/1993	802	802.00	0.65	523.56	181	1.8905%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65195.29303
5592050	6/16/1998	802	802.00	0.65	523.56	181	1.8905%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65195.29303
5592050	11/19/2003	800	800.00	0.65	522.26	183	1.9114%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65032.71125
5592050	5/9/2013	796	796.00	0.65	519.65	184	1.9219%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64707.54769
5592050	1/22/1993	789	789.00	0.65	515.08	185	1.9323%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64138.51147
5592050	2/22/2010	789	789.00	0.65	515.08	185	1.9323%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64138.51147
5592050	4/16/2013	789	789.00	0.65	515.08	185	1.9323%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64138.51147
5592050	11/18/1993	785	785.00	0.65	512.47	188	1.9637%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63813.34791
5592050	1/13/2007	783	783.00	0.65	511.16	189	1.9741%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63650.76613
5592050	6/14/2010	777	777.00	0.65	507.24	190	1.9845%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63163.0208
5592050	2/10/2001	776	776.00	0.65	506.59	191	1.9950%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63081.72991
5592050	8/1/1993	775	775.00	0.65	505.94	192	2.0054%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63000.43902
5592050	9/25/1993	775	775.00	0.65	505.94	192	2.0054%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63000.43902
5592050	11/12/1992	769	769.00	0.65	502.02	194	2.0263%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	62512.69369
5592050	3/18/1998	767	767.00	0.65	500.71	195	2.0368%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	62350.11191
5592050	5/26/2013	765	765.00	0.65	499.41	196	2.0472%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	62187.53013
5592050	3/29/2002	764	764.00	0.65	498.76	197	2.0577%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	62106.23924
5592050	5/4/1998	761	761.00	0.65	496.80	198	2.0681%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61862.36658
5592050	1/24/1999	756	756.00	0.65	493.53	199	2.0785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61455.91213
5592050	5/10/2002	755	755.00	0.65	492.88	200	2.0890%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61374.62124
5592050	9/27/1993	754	754.00	0.65	492.23	201	2.0994%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61293.33035
5592050	5/4/1996	754	754.00	0.65	492.23	201	2.0994%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61293.33035
5592050	12/1/2004	745	745.00	0.65	486.35	203	2.1203%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60561.71235
5592050	3/28/2002	736	736.00	0.65	480.48	204	2.1308%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59830.09435
5592050	3/28/2008	733	733.00	0.65	478.52	205	2.1412%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59586.22168
5592050	6/26/2000	727	727.00	0.65	474.60	206	2.1517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59098.47635
5592050	3/9/2002	723	723.00	0.65	471.99	207	2.1621%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58773.31279
5592050	5/29/2002	718	718.00	0.65	468.73	208	2.1726%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58366.85835
5592050	3/8/1995	717	717.00	0.65	468.07	209	2.1830%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58285.56746
5592050	1/4/2005	713	713.00	0.65	465.46	210	2.1934%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	57960.4039
5592050	12/29/2008	710	710.00	0.65	463.50	211	2.2039%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	57716.53123
5592050	10/21/1993	706	706.00	0.65	460.89	212	2.2143%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	57391.36768
5592050	2/21/2011	704	704.00	0.65	459.59	213	2.2248%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	57228.7859
5592050	10/17/1993	697	697.00	0.65	455.02	214	2.2352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56659.74968
5592050	5/4/2013	693	693.00	0.65	452.41	215	2.2457%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56334.58612
5592050	9/2/2003	692	692.00	0.65	451.75	216	2.2561%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56253.29523
5592050	5/31/2008	690	690.00	0.65	450.45	217	2.2666%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56090.71345
5592050	2/16/2011	690	690.00	0.65	450.45	217	2.2666%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56090.71345
5592050	7/6/2000	686	686.00	0.65	447.84	219	2.2874%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55765.5499
5592050	5/12/1990	683	683.00	0.65	445.88	220	2.2979%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55521.67723

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/10/2008	681	681.00	0.65	444.57	221	2.3083%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55359.09545
5592050	12/26/2009	676	676.00	0.65	441.31	222	2.3188%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54952.64101
5592050	5/9/2009	672	672.00	0.65	438.70	223	2.3292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54627.47745
5592050	1/31/2002	669	669.00	0.65	436.74	224	2.3397%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54383.27078
5592050	2/26/1997	668	668.00	0.65	436.09	225	2.3501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54302.31389
5592050	1/18/1996	666	666.00	0.65	434.78	226	2.3606%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54139.73211
5592050	5/1/2002	666	666.00	0.65	434.78	226	2.3606%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54139.73211
5592050	6/5/1993	664	664.00	0.65	433.47	228	2.3814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53977.15034
5592050	5/15/2009	663	663.00	0.65	432.82	229	2.3919%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53895.85945
5592050	11/13/1992	662	662.00	0.65	432.17	230	2.4023%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53814.56856
5592050	4/26/1993	661	661.00	0.65	431.52	231	2.4128%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53733.27767
5592050	6/14/2002	660	660.00	0.65	430.86	232	2.4232%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53651.98678
5592050	11/25/2010	659	659.00	0.65	430.21	233	2.4337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53570.69589
5592050	4/23/1996	653	653.00	0.65	426.29	234	2.4441%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53082.95056
5592050	2/26/2013	649	649.00	0.65	423.68	235	2.4546%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52757.787
5592050	4/15/1994	643	643.00	0.65	419.76	236	2.4650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52270.04167
5592050	3/29/1998	640	640.00	0.65	417.81	237	2.4755%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52026.169
5592050	1/23/1993	632	632.00	0.65	412.58	238	2.4859%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51375.84189
5592050	1/12/2005	624	624.00	0.65	407.36	239	2.4963%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50725.51477
5592050	1/16/2007	624	624.00	0.65	407.36	239	2.4963%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50725.51477
5592050	2/25/2011	619	619.00	0.65	404.10	241	2.5172%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50319.06033
5592050	9/26/1993	613	613.00	0.65	400.18	242	2.5277%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49831.31499
5592050	2/8/2005	611	611.00	0.65	398.87	243	2.5381%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49668.73322
5592050	2/7/2008	611	611.00	0.65	398.87	243	2.5381%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49668.73322
5592050	12/29/2003	610	610.00	0.65	398.22	245	2.5590%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49587.44233
5592050	2/19/2014	610	610.00	0.65	398.22	245	2.5590%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49587.44233
5592050	6/3/1999	607	607.00	0.65	396.26	247	2.5799%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49343.56966
5592050	1/31/2001	606	606.00	0.65	395.61	248	2.5903%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49262.27877
5592050	5/17/2009	600	600.00	0.65	391.69	249	2.6008%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48774.53344
5592050	4/16/1999	595	595.00	0.65	388.43	250	2.6112%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48368.07899
5592050	2/5/1991	592	592.00	0.65	386.47	251	2.6217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48124.20632
5592050	7/26/1992	592	592.00	0.65	386.47	251	2.6217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48124.20632
5592050	5/16/1995	592	592.00	0.65	386.47	251	2.6217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48124.20632
5592050	12/3/1993	591	591.00	0.65	385.82	254	2.6530%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48042.91544
5592050	4/29/2002	591	591.00	0.65	385.82	254	2.6530%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48042.91544
5592050	1/9/1998	589	589.00	0.65	384.51	256	2.6739%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47880.33366
5592050	2/26/2007	589	589.00	0.65	384.51	256	2.6739%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47880.33366
5592050	3/9/1998	586	586.00	0.65	382.55	258	2.6948%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47636.46099
5592050	6/5/1999	586	586.00	0.65	382.55	258	2.6948%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47636.46099
5592050	4/20/2009	585	585.00	0.65	381.90	260	2.7157%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47555.1701
5592050	5/1/1994	583	583.00	0.65	380.60	261	2.7261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47392.58832
5592050	11/10/2000	583	583.00	0.65	380.60	261	2.7261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47392.58832
5592050	9/14/1993	582	582.00	0.65	379.94	263	2.7470%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47311.29743
5592050	2/22/2011	582	582.00	0.65	379.94	263	2.7470%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47311.29743

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	5/15/1990	581	581.00	0.65	379.29	265	2.7679%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47230.00654
5592050	5/27/2011	580	580.00	0.65	378.64	266	2.7784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47148.71566
5592050	12/18/2001	568	568.00	0.65	370.80	267	2.7888%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46173.22499
5592050	3/17/1991	567	567.00	0.65	370.15	268	2.7992%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46091.9341
5592050	3/18/1991	566	566.00	0.65	369.50	269	2.8097%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46010.64321
5592050	1/24/2010	565	565.00	0.65	368.84	270	2.8201%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45929.35232
5592050	1/3/2005	564	564.00	0.65	368.19	271	2.8306%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45848.06143
5592050	2/28/1997	556	556.00	0.65	362.97	272	2.8410%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45197.73432
5592050	5/5/2013	556	556.00	0.65	362.97	272	2.8410%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45197.73432
5592050	7/22/1993	553	553.00	0.65	361.01	274	2.8619%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44953.86165
5592050	4/8/2006	552	552.00	0.65	360.36	275	2.8724%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44872.57076
5592050	1/1/1991	550	550.00	0.65	359.05	276	2.8828%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44709.98898
5592050	2/27/2013	550	550.00	0.65	359.05	276	2.8828%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44709.98898
5592050	6/4/2008	548	548.00	0.65	357.75	278	2.9037%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44547.40721
5592050	6/22/1998	544	544.00	0.65	355.14	279	2.9141%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44222.24365
5592050	3/3/1993	543	543.00	0.65	354.48	280	2.9246%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44140.95276
5592050	9/4/2010	539	539.00	0.65	351.87	281	2.9350%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43815.7892
5592050	3/13/2016	539	539.00	0.65	351.87	281	2.9350%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43815.7892
5592050	6/23/1998	538	538.00	0.65	351.22	283	2.9559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43734.49831
5592050	3/25/2002	538	538.00	0.65	351.22	283	2.9559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43734.49831
5592050	3/20/2008	538	538.00	0.65	351.22	283	2.9559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43734.49831
5592050	1/14/2007	535	535.00	0.65	349.26	286	2.9873%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43490.62565
5592050	3/9/2011	535	535.00	0.65	349.26	286	2.9873%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43490.62565
5592050	3/31/2008	534	534.00	0.65	348.61	288	3.0081%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43409.33476
5592050	4/20/2013	533	533.00	0.65	347.95	289	3.0186%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43328.04387
5592050	6/4/2001	532	532.00	0.65	347.30	290	3.0290%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43246.75298
5592050	5/2/2012	532	532.00	0.65	347.30	290	3.0290%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43246.75298
5592050	2/6/1991	531	531.00	0.65	346.65	292	3.0499%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43165.46209
5592050	3/10/2006	531	531.00	0.65	346.65	292	3.0499%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43165.46209
5592050	1/19/1995	530	530.00	0.65	346.00	294	3.0708%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43084.1712
5592050	6/7/1990	529	529.00	0.65	345.34	295	3.0813%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43002.88031
5592050	1/7/2005	529	529.00	0.65	345.34	295	3.0813%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43002.88031
5592050	11/19/2009	529	529.00	0.65	345.34	295	3.0813%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43002.88031
5592050	3/4/2004	527	527.00	0.65	344.04	298	3.1126%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42840.29854
5592050	2/22/2007	527	527.00	0.65	344.04	298	3.1126%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42840.29854
5592050	5/13/1995	526	526.00	0.65	343.38	300	3.1335%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42759.00765
5592050	5/10/2003	522	522.00	0.65	340.77	301	3.1439%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42433.84409
5592050	2/26/2011	522	522.00	0.65	340.77	301	3.1439%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42433.84409
5592050	4/17/1999	521	521.00	0.65	340.12	303	3.1648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42352.5532
5592050	11/25/2004	518	518.00	0.65	338.16	304	3.1753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42108.68053
5592050	1/24/1993	516	516.00	0.65	336.86	305	3.1857%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41946.09876
5592050	3/13/2006	514	514.00	0.65	335.55	306	3.1962%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41783.51698
5592050	6/16/2010	514	514.00	0.65	335.55	306	3.1962%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41783.51698
5592050	6/12/1998	508	508.00	0.65	331.63	308	3.2170%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41295.77164

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	5/17/2002	508	508.00	0.65	331.63	308	3.2170%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41295.77164
5592050	4/28/2009	507	507.00	0.65	330.98	310	3.2379%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41214.48075
5592050	6/7/2008	506	506.00	0.65	330.33	311	3.2484%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41133.18986
5592050	9/13/2008	506	506.00	0.65	330.33	311	3.2484%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41133.18986
5592050	6/12/1994	503	503.00	0.65	328.37	313	3.2693%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40889.3172
5592050	4/1/1996	500	500.00	0.65	326.41	314	3.2797%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40645.44453
5592050	1/22/1997	500	500.00	0.65	326.41	314	3.2797%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40645.44453
5592050	4/4/2014	497	497.00	0.65	324.45	316	3.3006%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40401.57186
5592050	6/21/2015	496	496.00	0.65	323.80	317	3.3111%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40320.28097
5592050	6/18/2015	492	492.00	0.65	321.19	318	3.3215%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39995.11742
5592050	11/22/1992	490	490.00	0.65	319.88	319	3.3319%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39832.53564
5592050	3/23/1991	489	489.00	0.65	319.23	320	3.3424%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39751.24475
5592050	6/4/1993	486	486.00	0.65	317.27	321	3.3528%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39507.37208
5592050	2/21/2007	486	486.00	0.65	317.27	321	3.3528%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39507.37208
5592050	2/7/2009	486	486.00	0.65	317.27	321	3.3528%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39507.37208
5592050	3/3/2008	482	482.00	0.65	314.66	324	3.3842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39182.20853
5592050	3/29/2004	477	477.00	0.65	311.40	325	3.3946%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38775.75408
5592050	6/18/2009	477	477.00	0.65	311.40	325	3.3946%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38775.75408
5592050	6/21/2000	475	475.00	0.65	310.09	327	3.4155%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38613.1723
5592050	5/16/2002	475	475.00	0.65	310.09	327	3.4155%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38613.1723
5592050	3/6/1993	474	474.00	0.65	309.44	329	3.4364%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38531.88141
5592050	6/21/1990	473	473.00	0.65	308.79	330	3.4468%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38450.59053
5592050	2/21/1997	472	472.00	0.65	308.13	331	3.4573%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38369.29964
5592050	5/13/1999	471	471.00	0.65	307.48	332	3.4677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38288.00875
5592050	3/6/2011	470	470.00	0.65	306.83	333	3.4782%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38206.71786
5592050	1/11/2005	469	469.00	0.65	306.17	334	3.4886%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38125.42697
5592050	3/17/1998	468	468.00	0.65	305.52	335	3.4991%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38044.13608
5592050	2/18/2011	465	465.00	0.65	303.56	336	3.5095%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37800.26341
5592050	2/13/2005	463	463.00	0.65	302.26	337	3.5199%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37637.68164
5592050	4/28/2014	462	462.00	0.65	301.60	338	3.5304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37556.39075
5592050	11/28/2004	458	458.00	0.65	298.99	339	3.5408%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37231.22719
5592050	6/19/2011	457	457.00	0.65	298.34	340	3.5513%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37149.9363
5592050	6/19/2010	452	452.00	0.65	295.08	341	3.5617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36743.48186
5592050	2/15/2011	452	452.00	0.65	295.08	341	3.5617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36743.48186
5592050	2/17/2008	450	450.00	0.65	293.77	343	3.5826%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36580.90008
5592050	5/11/2003	449	449.00	0.65	293.12	344	3.5931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36499.60919
5592050	1/22/2010	449	449.00	0.65	293.12	344	3.5931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36499.60919
5592050	9/16/1993	447	447.00	0.65	291.81	346	3.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36337.02741
5592050	4/3/2009	447	447.00	0.65	291.81	346	3.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36337.02741
5592050	3/1/2011	447	447.00	0.65	291.81	346	3.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36337.02741
5592050	3/22/1991	442	442.00	0.65	288.55	349	3.6453%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35930.57297
5592050	9/12/2008	442	442.00	0.65	288.55	349	3.6453%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35930.57297
5592050	4/22/1996	441	441.00	0.65	287.89	351	3.6662%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35849.28208
5592050	2/7/2005	441	441.00	0.65	287.89	351	3.6662%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35849.28208

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/24/2002	439	439.00	0.65	286.59	353	3.6871%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35686.7003
5592050	5/18/2002	439	439.00	0.65	286.59	353	3.6871%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35686.7003
5592050	2/20/2004	439	439.00	0.65	286.59	353	3.6871%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35686.7003
5592050	6/16/2015	436	436.00	0.65	284.63	356	3.7184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35442.82763
5592050	7/23/1993	435	435.00	0.65	283.98	357	3.7288%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35361.53674
5592050	5/11/2002	435	435.00	0.65	283.98	357	3.7288%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35361.53674
5592050	12/9/2004	434	434.00	0.65	283.32	359	3.7497%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35280.24585
5592050	4/22/2011	433	433.00	0.65	282.67	360	3.7602%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35198.95496
5592050	4/24/2013	433	433.00	0.65	282.67	360	3.7602%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35198.95496
5592050	3/23/1993	432	432.00	0.65	282.02	362	3.7811%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35117.66407
5592050	4/19/2011	431	431.00	0.65	281.37	363	3.7915%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35036.37319
5592050	7/1/1993	429	429.00	0.65	280.06	364	3.8020%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34873.79141
5592050	6/8/2001	424	424.00	0.65	276.80	365	3.8124%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34467.33696
5592050	10/7/2000	422	422.00	0.65	275.49	366	3.8229%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34304.75518
5592050	3/14/2015	422	422.00	0.65	275.49	366	3.8229%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34304.75518
5592050	12/30/2015	422	422.00	0.65	275.49	366	3.8229%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34304.75518
5592050	11/16/1993	421	421.00	0.65	274.84	369	3.8542%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34223.46429
5592050	4/29/2011	421	421.00	0.65	274.84	369	3.8542%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34223.46429
5592050	2/4/1991	420	420.00	0.65	274.19	371	3.8751%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34142.17341
5592050	1/30/2013	420	420.00	0.65	274.19	371	3.8751%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34142.17341
5592050	5/5/1996	419	419.00	0.65	273.53	373	3.8960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34060.88252
5592050	2/24/2007	419	419.00	0.65	273.53	373	3.8960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34060.88252
5592050	9/16/2008	419	419.00	0.65	273.53	373	3.8960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34060.88252
5592050	12/30/2008	418	418.00	0.65	272.88	376	3.9273%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33979.59163
5592050	3/31/1996	417	417.00	0.65	272.23	377	3.9377%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33898.30074
5592050	3/6/2004	417	417.00	0.65	272.23	377	3.9377%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33898.30074
5592050	4/10/2009	415	415.00	0.65	270.92	379	3.9586%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33735.71896
5592050	12/16/1992	414	414.00	0.65	270.27	380	3.9691%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33654.42807
5592050	11/23/1992	412	412.00	0.65	268.96	381	3.9795%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33491.84629
5592050	5/15/2002	412	412.00	0.65	268.96	381	3.9795%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33491.84629
5592050	4/9/2011	412	412.00	0.65	268.96	381	3.9795%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33491.84629
5592050	3/1/2007	409	409.00	0.65	267.00	384	4.0109%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33247.97363
5592050	4/21/2011	401	401.00	0.65	261.78	385	4.0213%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32597.64651
5592050	6/2/2013	401	401.00	0.65	261.78	385	4.0213%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32597.64651
5592050	1/25/1994	400	400.00	0.65	261.13	387	4.0422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32516.35562
5592050	2/27/2011	400	400.00	0.65	261.13	387	4.0422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32516.35562
5592050	4/23/2011	400	400.00	0.65	261.13	387	4.0422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32516.35562
5592050	6/2/1996	398	398.00	0.65	259.82	390	4.0735%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32353.77385
5592050	5/18/1990	397	397.00	0.65	259.17	391	4.0840%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32272.48296
5592050	9/4/1993	397	397.00	0.65	259.17	391	4.0840%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32272.48296
5592050	6/1/2008	397	397.00	0.65	259.17	391	4.0840%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32272.48296
5592050	5/1/1996	395	395.00	0.65	257.86	394	4.1153%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32109.90118
5592050	4/28/1999	394	394.00	0.65	257.21	395	4.1258%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32028.61029
5592050	3/4/2008	394	394.00	0.65	257.21	395	4.1258%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32028.61029

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/8/2008	394	394.00	0.65	257.21	395	4.1258%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32028.61029
5592050	11/16/2009	394	394.00	0.65	257.21	395	4.1258%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32028.61029
5592050	7/25/2010	394	394.00	0.65	257.21	395	4.1258%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32028.61029
5592050	2/26/2001	393	393.00	0.65	256.56	400	4.1780%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31947.3194
5592050	11/1/2009	393	393.00	0.65	256.56	400	4.1780%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31947.3194
5592050	6/26/2015	393	393.00	0.65	256.56	400	4.1780%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31947.3194
5592050	1/24/1996	391	391.00	0.65	255.25	403	4.2093%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31784.73762
5592050	12/5/1993	389	389.00	0.65	253.95	404	4.2198%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31622.15584
5592050	2/15/2005	389	389.00	0.65	253.95	404	4.2198%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31622.15584
5592050	11/26/2010	389	389.00	0.65	253.95	404	4.2198%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31622.15584
5592050	3/10/2002	388	388.00	0.65	253.30	407	4.2511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31540.86496
5592050	11/11/1992	387	387.00	0.65	252.64	408	4.2615%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31459.57407
5592050	11/9/2000	386	386.00	0.65	251.99	409	4.2720%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31378.28318
5592050	7/2/1993	380	380.00	0.65	248.07	410	4.2824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30890.53784
5592050	4/23/2002	380	380.00	0.65	248.07	410	4.2824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30890.53784
5592050	11/27/1993	378	378.00	0.65	246.77	412	4.3033%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30727.95607
5592050	5/2/2009	378	378.00	0.65	246.77	412	4.3033%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30727.95607
5592050	12/23/2009	378	378.00	0.65	246.77	412	4.3033%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30727.95607
5592050	2/18/1998	377	377.00	0.65	246.11	415	4.3347%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30646.66518
5592050	11/30/2004	377	377.00	0.65	246.11	415	4.3347%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30646.66518
5592050	11/30/2010	377	377.00	0.65	246.11	415	4.3347%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30646.66518
5592050	3/10/1997	376	376.00	0.65	245.46	418	4.3660%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30565.37429
5592050	6/15/2011	376	376.00	0.65	245.46	418	4.3660%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30565.37429
5592050	6/13/2014	374	374.00	0.65	244.16	420	4.3869%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30402.79251
5592050	5/11/1995	373	373.00	0.65	243.50	421	4.3973%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30321.50162
5592050	5/12/1996	372	372.00	0.65	242.85	422	4.4078%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30240.21073
5592050	2/17/1998	372	372.00	0.65	242.85	422	4.4078%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30240.21073
5592050	3/22/1998	372	372.00	0.65	242.85	422	4.4078%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30240.21073
5592050	6/24/2000	372	372.00	0.65	242.85	422	4.4078%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30240.21073
5592050	3/10/2015	371	371.00	0.65	242.20	426	4.4496%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30158.91984
5592050	2/12/1999	370	370.00	0.65	241.54	427	4.4600%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30077.62895
5592050	1/23/1996	368	368.00	0.65	240.24	428	4.4704%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29915.04717
5592050	5/11/2015	368	368.00	0.65	240.24	428	4.4704%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29915.04717
5592050	12/3/1990	365	365.00	0.65	238.28	430	4.4913%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29671.17451
5592050	3/30/2002	363	363.00	0.65	236.97	431	4.5018%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29508.59273
5592050	5/20/1995	360	360.00	0.65	235.02	432	4.5122%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29264.72006
5592050	2/9/1999	360	360.00	0.65	235.02	432	4.5122%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29264.72006
5592050	1/15/1995	359	359.00	0.65	234.36	434	4.5331%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29183.42917
5592050	4/30/2012	359	359.00	0.65	234.36	434	4.5331%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29183.42917
5592050	5/29/2013	359	359.00	0.65	234.36	434	4.5331%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29183.42917
5592050	4/16/1994	356	356.00	0.65	232.40	437	4.5644%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28939.55651
5592050	2/7/1991	355	355.00	0.65	231.75	438	4.5749%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28858.26562
5592050	6/27/2000	352	352.00	0.65	229.79	439	4.5853%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28614.39295
5592050	5/14/2004	352	352.00	0.65	229.79	439	4.5853%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28614.39295

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/11/2009	352	352.00	0.65	229.79	439	4.5853%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28614.39295
5592050	4/2/2008	351	351.00	0.65	229.14	442	4.6167%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28533.10206
5592050	12/9/2009	351	351.00	0.65	229.14	442	4.6167%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28533.10206
5592050	3/11/2006	350	350.00	0.65	228.49	444	4.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28451.81117
5592050	1/29/1994	349	349.00	0.65	227.84	445	4.6480%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28370.52028
5592050	1/20/1991	348	348.00	0.65	227.18	446	4.6584%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28289.22939
5592050	4/26/2002	348	348.00	0.65	227.18	446	4.6584%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28289.22939
5592050	5/24/1998	347	347.00	0.65	226.53	448	4.6793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28207.9385
5592050	6/14/1999	346	346.00	0.65	225.88	449	4.6898%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28126.64762
5592050	2/21/2010	346	346.00	0.65	225.88	449	4.6898%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28126.64762
5592050	7/16/1993	345	345.00	0.65	225.22	451	4.7107%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28045.35673
5592050	2/19/2004	344	344.00	0.65	224.57	452	4.7211%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27964.06584
5592050	6/19/2009	340	340.00	0.65	221.96	453	4.7316%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27638.90228
5592050	2/15/2001	338	338.00	0.65	220.65	454	4.7420%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27476.3205
5592050	1/10/2005	338	338.00	0.65	220.65	454	4.7420%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27476.3205
5592050	1/19/1991	337	337.00	0.65	220.00	456	4.7629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27395.02961
5592050	5/8/1994	337	337.00	0.65	220.00	456	4.7629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27395.02961
5592050	5/7/1996	336	336.00	0.65	219.35	458	4.7838%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27313.73872
5592050	4/3/1998	336	336.00	0.65	219.35	458	4.7838%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27313.73872
5592050	1/17/1991	335	335.00	0.65	218.70	460	4.8047%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27232.44784
5592050	5/31/2013	335	335.00	0.65	218.70	460	4.8047%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27232.44784
5592050	3/14/2016	333	333.00	0.65	217.39	462	4.8256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27069.86606
5592050	8/5/1998	332	332.00	0.65	216.74	463	4.8360%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26988.57517
5592050	4/9/2006	332	332.00	0.65	216.74	463	4.8360%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26988.57517
5592050	3/13/2010	332	332.00	0.65	216.74	463	4.8360%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26988.57517
5592050	11/27/2004	331	331.00	0.65	216.08	466	4.8673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26907.28428
5592050	2/23/2007	331	331.00	0.65	216.08	466	4.8673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26907.28428
5592050	12/13/2009	331	331.00	0.65	216.08	466	4.8673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26907.28428
5592050	4/3/2014	330	330.00	0.65	215.43	469	4.8987%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26825.99339
5592050	1/21/2010	329	329.00	0.65	214.78	470	4.9091%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26744.7025
5592050	6/21/2009	328	328.00	0.65	214.13	471	4.9196%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26663.41161
5592050	10/14/2014	328	328.00	0.65	214.13	471	4.9196%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26663.41161
5592050	1/20/1995	327	327.00	0.65	213.47	473	4.9405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26582.12072
5592050	3/28/2004	327	327.00	0.65	213.47	473	4.9405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26582.12072
5592050	2/9/2005	327	327.00	0.65	213.47	473	4.9405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26582.12072
5592050	6/13/2010	324	324.00	0.65	211.51	476	4.9718%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26338.24806
5592050	1/6/1993	323	323.00	0.65	210.86	477	4.9822%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26256.95717
5592050	12/31/2008	323	323.00	0.65	210.86	477	4.9822%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26256.95717
5592050	11/19/1993	322	322.00	0.65	210.21	479	5.0031%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26175.66628
5592050	5/3/2002	322	322.00	0.65	210.21	479	5.0031%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26175.66628
5592050	6/27/2011	322	322.00	0.65	210.21	479	5.0031%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26175.66628
5592050	10/20/1993	321	321.00	0.65	209.56	482	5.0345%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26094.37539
5592050	11/28/1990	319	319.00	0.65	208.25	483	5.0449%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25931.79361
5592050	1/18/2004	319	319.00	0.65	208.25	483	5.0449%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25931.79361

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/20/2009	319	319.00	0.65	208.25	483	5.0449%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25931.79361
5592050	4/14/1994	318	318.00	0.65	207.60	486	5.0762%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25850.50272
5592050	1/19/1996	318	318.00	0.65	207.60	486	5.0762%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25850.50272
5592050	3/18/2008	318	318.00	0.65	207.60	486	5.0762%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25850.50272
5592050	10/23/2009	317	317.00	0.65	206.94	489	5.1076%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25769.21183
5592050	5/6/1999	316	316.00	0.65	206.29	490	5.1180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25687.92094
5592050	4/9/2015	315	315.00	0.65	205.64	491	5.1285%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25606.63005
5592050	6/13/1999	314	314.00	0.65	204.99	492	5.1389%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25525.33917
5592050	7/12/2014	314	314.00	0.65	204.99	492	5.1389%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25525.33917
5592050	1/1/2011	313	313.00	0.65	204.33	494	5.1598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25444.04828
5592050	4/28/2013	313	313.00	0.65	204.33	494	5.1598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25444.04828
5592050	6/17/1998	312	312.00	0.65	203.68	496	5.1807%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25362.75739
5592050	2/2/2002	311	311.00	0.65	203.03	497	5.1911%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25281.4665
5592050	1/25/2010	309	309.00	0.65	201.72	498	5.2016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25118.88472
5592050	11/25/2009	308	308.00	0.65	201.07	499	5.2120%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25037.59383
5592050	3/27/2002	306	306.00	0.65	199.76	500	5.2225%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24875.01205
5592050	8/9/2006	305	305.00	0.65	199.11	501	5.2329%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24793.72116
5592050	12/2/2004	303	303.00	0.65	197.81	502	5.2434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24631.13939
5592050	4/18/1995	302	302.00	0.65	197.15	503	5.2538%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24549.8485
5592050	1/25/1999	302	302.00	0.65	197.15	503	5.2538%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24549.8485
5592050	12/25/2008	302	302.00	0.65	197.15	503	5.2538%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24549.8485
5592050	6/11/1998	301	301.00	0.65	196.50	506	5.2851%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24468.55761
5592050	2/24/2011	301	301.00	0.65	196.50	506	5.2851%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24468.55761
5592050	2/2/1997	300	300.00	0.65	195.85	508	5.3060%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24387.26672
5592050	1/29/2001	300	300.00	0.65	195.85	508	5.3060%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24387.26672
5592050	4/5/1998	299	299.00	0.65	195.19	510	5.3269%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24305.97583
5592050	12/10/2004	299	299.00	0.65	195.19	510	5.3269%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24305.97583
5592050	2/23/2010	299	299.00	0.65	195.19	510	5.3269%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24305.97583
5592050	1/15/2005	298	298.00	0.65	194.54	513	5.3583%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24224.68494
5592050	4/16/2012	297	297.00	0.65	193.89	514	5.3687%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24143.39405
5592050	9/28/1993	296	296.00	0.65	193.24	515	5.3792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24062.10316
5592050	3/30/2004	296	296.00	0.65	193.24	515	5.3792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24062.10316
5592050	1/11/1991	295	295.00	0.65	192.58	517	5.4000%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23980.81227
5592050	5/29/1996	295	295.00	0.65	192.58	517	5.4000%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23980.81227
5592050	6/14/1998	295	295.00	0.65	192.58	517	5.4000%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23980.81227
5592050	3/7/1993	294	294.00	0.65	191.93	520	5.4314%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23899.52138
5592050	6/18/2011	294	294.00	0.65	191.93	520	5.4314%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23899.52138
5592050	4/18/1999	293	293.00	0.65	191.28	522	5.4523%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23818.23049
5592050	3/3/2002	293	293.00	0.65	191.28	522	5.4523%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23818.23049
5592050	4/1/1993	291	291.00	0.65	189.97	524	5.4732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23655.64872
5592050	3/19/1998	291	291.00	0.65	189.97	524	5.4732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23655.64872
5592050	4/13/2009	291	291.00	0.65	189.97	524	5.4732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23655.64872
5592050	1/26/2012	291	291.00	0.65	189.97	524	5.4732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23655.64872
5592050	7/24/1993	288	288.00	0.65	188.01	528	5.5149%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23411.77605

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	3/9/1997	288	288.00	0.65	188.01	528	5.5149%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23411.77605
5592050	4/30/2002	288	288.00	0.65	188.01	528	5.5149%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23411.77605
5592050	2/14/2001	287	287.00	0.65	187.36	531	5.5463%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23330.48516
5592050	4/12/2008	287	287.00	0.65	187.36	531	5.5463%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23330.48516
5592050	1/6/2004	286	286.00	0.65	186.71	533	5.5672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23249.19427
5592050	2/13/2009	286	286.00	0.65	186.71	533	5.5672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23249.19427
5592050	1/13/2013	286	286.00	0.65	186.71	533	5.5672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23249.19427
5592050	4/29/2012	284	284.00	0.65	185.40	536	5.5985%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23086.61249
5592050	8/10/1995	283	283.00	0.65	184.75	537	5.6089%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23005.3216
5592050	5/2/2006	283	283.00	0.65	184.75	537	5.6089%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23005.3216
5592050	10/19/2004	281	281.00	0.65	183.44	539	5.6298%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22842.73983
5592050	4/25/2011	281	281.00	0.65	183.44	539	5.6298%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22842.73983
5592050	2/14/1991	280	280.00	0.65	182.79	541	5.6507%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22761.44894
5592050	2/3/1997	280	280.00	0.65	182.79	541	5.6507%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22761.44894
5592050	6/11/2002	280	280.00	0.65	182.79	541	5.6507%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22761.44894
5592050	3/2/2007	280	280.00	0.65	182.79	541	5.6507%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22761.44894
5592050	6/9/1998	279	279.00	0.65	182.14	545	5.6925%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22680.15805
5592050	4/24/2011	278	278.00	0.65	181.48	546	5.7029%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22598.86716
5592050	2/3/1991	277	277.00	0.65	180.83	547	5.7134%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22517.57627
5592050	12/22/2006	276	276.00	0.65	180.18	548	5.7238%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22436.28538
5592050	2/1/1999	275	275.00	0.65	179.53	549	5.7343%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22354.99449
5592050	1/8/2005	274	274.00	0.65	178.87	550	5.7447%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22273.7036
5592050	2/8/2008	274	274.00	0.65	178.87	550	5.7447%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22273.7036
5592050	11/9/1994	273	273.00	0.65	178.22	552	5.7656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22192.41271
5592050	4/10/2006	273	273.00	0.65	178.22	552	5.7656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22192.41271
5592050	4/24/1996	272	272.00	0.65	177.57	554	5.7865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22111.12182
5592050	1/31/1999	272	272.00	0.65	177.57	554	5.7865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22111.12182
5592050	5/14/1995	271	271.00	0.65	176.91	556	5.8074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22029.83094
5592050	3/26/2002	270	270.00	0.65	176.26	557	5.8178%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21948.54005
5592050	3/29/2008	270	270.00	0.65	176.26	557	5.8178%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21948.54005
5592050	2/28/2013	270	270.00	0.65	176.26	557	5.8178%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21948.54005
5592050	5/6/2013	270	270.00	0.65	176.26	557	5.8178%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21948.54005
5592050	2/16/2005	269	269.00	0.65	175.61	561	5.8596%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21867.24916
5592050	12/11/2004	267	267.00	0.65	174.30	562	5.8701%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21704.66738
5592050	6/28/1995	266	266.00	0.65	173.65	563	5.8805%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21623.37649
5592050	2/2/2014	266	266.00	0.65	173.65	563	5.8805%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21623.37649
5592050	5/13/1996	265	265.00	0.65	173.00	565	5.9014%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21542.0856
5592050	6/10/1996	265	265.00	0.65	173.00	565	5.9014%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21542.0856
5592050	1/27/2012	265	265.00	0.65	173.00	565	5.9014%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21542.0856
5592050	12/30/2003	264	264.00	0.65	172.35	568	5.9327%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21460.79471
5592050	5/2/1994	263	263.00	0.65	171.69	569	5.9432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21379.50382
5592050	6/24/1994	263	263.00	0.65	171.69	569	5.9432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21379.50382
5592050	5/8/1998	263	263.00	0.65	171.69	569	5.9432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21379.50382
5592050	5/30/2002	263	263.00	0.65	171.69	569	5.9432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21379.50382

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/29/2009	263	263.00	0.65	171.69	569	5.9432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21379.50382
5592050	6/21/2010	263	263.00	0.65	171.69	569	5.9432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21379.50382
5592050	12/23/2014	262	262.00	0.65	171.04	575	6.0058%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21298.21293
5592050	12/30/1992	260	260.00	0.65	169.73	576	6.0163%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21135.63116
5592050	3/26/2015	260	260.00	0.65	169.73	576	6.0163%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21135.63116
5592050	2/22/1997	259	259.00	0.65	169.08	578	6.0372%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21054.34027
5592050	3/10/1998	259	259.00	0.65	169.08	578	6.0372%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21054.34027
5592050	12/14/2009	258	258.00	0.65	168.43	580	6.0581%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20973.04938
5592050	3/31/1993	257	257.00	0.65	167.78	581	6.0685%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20891.75849
5592050	5/2/1996	257	257.00	0.65	167.78	581	6.0685%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20891.75849
5592050	5/19/2002	257	257.00	0.65	167.78	581	6.0685%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20891.75849
5592050	5/5/1998	256	256.00	0.65	167.12	584	6.0999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20810.4676
5592050	11/24/2003	256	256.00	0.65	167.12	584	6.0999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20810.4676
5592050	3/8/1998	255	255.00	0.65	166.47	586	6.1207%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20729.17671
5592050	2/9/2008	255	255.00	0.65	166.47	586	6.1207%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20729.17671
5592050	6/4/1999	254	254.00	0.65	165.82	588	6.1416%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20647.88582
5592050	11/21/1994	253	253.00	0.65	165.16	589	6.1521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20566.59493
5592050	3/1/1997	253	253.00	0.65	165.16	589	6.1521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20566.59493
5592050	6/26/2013	253	253.00	0.65	165.16	589	6.1521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20566.59493
5592050	6/9/2015	253	253.00	0.65	165.16	589	6.1521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20566.59493
5592050	1/15/1991	252	252.00	0.65	164.51	593	6.1939%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20485.30404
5592050	6/15/2002	252	252.00	0.65	164.51	593	6.1939%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20485.30404
5592050	6/29/1995	251	251.00	0.65	163.86	595	6.2147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20404.01315
5592050	1/1/2009	251	251.00	0.65	163.86	595	6.2147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20404.01315
5592050	1/26/1994	250	250.00	0.65	163.21	597	6.2356%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20322.72227
5592050	1/17/1996	250	250.00	0.65	163.21	597	6.2356%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20322.72227
5592050	1/23/1997	250	250.00	0.65	163.21	597	6.2356%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20322.72227
5592050	1/15/2001	250	250.00	0.65	163.21	597	6.2356%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20322.72227
5592050	2/20/2007	248	248.00	0.65	161.90	601	6.2774%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20160.14049
5592050	6/27/2015	248	248.00	0.65	161.90	601	6.2774%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20160.14049
5592050	5/12/1995	246	246.00	0.65	160.59	603	6.2983%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19997.55871
5592050	3/7/2008	246	246.00	0.65	160.59	603	6.2983%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19997.55871
5592050	3/10/2011	246	246.00	0.65	160.59	603	6.2983%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19997.55871
5592050	3/9/2015	246	246.00	0.65	160.59	603	6.2983%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19997.55871
5592050	1/9/2005	245	245.00	0.65	159.94	607	6.3401%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19916.26782
5592050	3/11/2015	245	245.00	0.65	159.94	607	6.3401%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19916.26782
5592050	2/23/1994	244	244.00	0.65	159.29	609	6.3610%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19834.97693
5592050	5/29/1995	244	244.00	0.65	159.29	609	6.3610%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19834.97693
5592050	10/2/2014	243	243.00	0.65	158.64	611	6.3819%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19753.68604
5592050	6/27/2013	242	242.00	0.65	157.98	612	6.3923%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19672.39515
5592050	2/11/1999	241	241.00	0.65	157.33	613	6.4028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19591.10426
5592050	6/9/2001	241	241.00	0.65	157.33	613	6.4028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19591.10426
5592050	6/3/1996	240	240.00	0.65	156.68	615	6.4236%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19509.81337
5592050	3/2/2002	240	240.00	0.65	156.68	615	6.4236%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19509.81337

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	3/21/2008	240	240.00	0.65	156.68	615	6.4236%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19509.81337
5592050	2/23/2011	240	240.00	0.65	156.68	615	6.4236%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19509.81337
5592050	1/18/1991	237	237.00	0.65	154.72	619	6.4654%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19265.94071
5592050	6/21/1995	237	237.00	0.65	154.72	619	6.4654%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19265.94071
5592050	11/13/2000	237	237.00	0.65	154.72	619	6.4654%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19265.94071
5592050	3/16/2002	237	237.00	0.65	154.72	619	6.4654%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19265.94071
5592050	4/11/2006	237	237.00	0.65	154.72	619	6.4654%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19265.94071
5592050	5/11/2013	236	236.00	0.65	154.07	624	6.5177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19184.64982
5592050	10/3/2014	236	236.00	0.65	154.07	624	6.5177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19184.64982
5592050	12/31/1992	235	235.00	0.65	153.41	626	6.5385%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19103.35893
5592050	5/7/1998	235	235.00	0.65	153.41	626	6.5385%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19103.35893
5592050	4/21/2013	234	234.00	0.65	152.76	628	6.5594%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19022.06804
5592050	6/28/2015	234	234.00	0.65	152.76	628	6.5594%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19022.06804
5592050	12/16/2001	233	233.00	0.65	152.11	630	6.5803%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18940.77715
5592050	3/31/2004	233	233.00	0.65	152.11	630	6.5803%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18940.77715
5592050	12/1/2006	233	233.00	0.65	152.11	630	6.5803%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18940.77715
5592050	5/10/2009	233	233.00	0.65	152.11	630	6.5803%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18940.77715
5592050	11/11/2000	232	232.00	0.65	151.45	634	6.6221%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18859.48626
5592050	3/20/2002	232	232.00	0.65	151.45	634	6.6221%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18859.48626
5592050	3/6/2008	232	232.00	0.65	151.45	634	6.6221%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18859.48626
5592050	2/19/2011	232	232.00	0.65	151.45	634	6.6221%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18859.48626
5592050	12/31/2015	232	232.00	0.65	151.45	634	6.6221%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18859.48626
5592050	12/23/2003	231	231.00	0.65	150.80	639	6.6743%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18778.19537
5592050	5/21/1995	230	230.00	0.65	150.15	640	6.6848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18696.90448
5592050	2/8/2009	230	230.00	0.65	150.15	640	6.6848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18696.90448
5592050	11/14/1992	229	229.00	0.65	149.50	642	6.7057%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18615.6136
5592050	4/3/2006	229	229.00	0.65	149.50	642	6.7057%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18615.6136
5592050	5/28/2011	229	229.00	0.65	149.50	642	6.7057%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18615.6136
5592050	6/30/2015	229	229.00	0.65	149.50	642	6.7057%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18615.6136
5592050	2/5/1997	228	228.00	0.65	148.84	646	6.7474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18534.32271
5592050	3/13/2015	228	228.00	0.65	148.84	646	6.7474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18534.32271
5592050	3/15/1997	227	227.00	0.65	148.19	648	6.7683%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18453.03182
5592050	3/30/1998	227	227.00	0.65	148.19	648	6.7683%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18453.03182
5592050	12/12/2004	227	227.00	0.65	148.19	648	6.7683%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18453.03182
5592050	7/18/1993	226	226.00	0.65	147.54	651	6.7997%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18371.74093
5592050	6/25/2002	226	226.00	0.65	147.54	651	6.7997%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18371.74093
5592050	1/12/1991	225	225.00	0.65	146.89	653	6.8206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18290.45004
5592050	12/19/2001	225	225.00	0.65	146.89	653	6.8206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18290.45004
5592050	12/27/2009	225	225.00	0.65	146.89	653	6.8206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18290.45004
5592050	5/14/1996	224	224.00	0.65	146.23	656	6.8519%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18209.15915
5592050	2/10/1999	224	224.00	0.65	146.23	656	6.8519%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18209.15915
5592050	5/3/2009	224	224.00	0.65	146.23	656	6.8519%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18209.15915
5592050	5/6/1996	223	223.00	0.65	145.58	659	6.8832%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18127.86826
5592050	4/30/2014	223	223.00	0.65	145.58	659	6.8832%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18127.86826

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/15/2015	223	223.00	0.65	145.58	659	6.8832%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18127.86826
5592050	2/11/2001	222	222.00	0.65	144.93	662	6.9146%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18046.57737
5592050	2/16/2001	222	222.00	0.65	144.93	662	6.9146%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18046.57737
5592050	4/6/2009	222	222.00	0.65	144.93	662	6.9146%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18046.57737
5592050	6/22/2015	222	222.00	0.65	144.93	662	6.9146%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18046.57737
5592050	1/2/2009	221	221.00	0.65	144.27	666	6.9563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17965.28648
5592050	4/14/2009	221	221.00	0.65	144.27	666	6.9563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17965.28648
5592050	3/7/2011	221	221.00	0.65	144.27	666	6.9563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17965.28648
5592050	4/10/2015	221	221.00	0.65	144.27	666	6.9563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17965.28648
5592050	11/28/1993	220	220.00	0.65	143.62	670	6.9981%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17883.99559
5592050	2/1/2001	220	220.00	0.65	143.62	670	6.9981%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17883.99559
5592050	11/21/2009	220	220.00	0.65	143.62	670	6.9981%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17883.99559
5592050	5/19/1990	219	219.00	0.65	142.97	673	7.0295%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17802.7047
5592050	2/8/1991	219	219.00	0.65	142.97	673	7.0295%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17802.7047
5592050	11/24/2004	219	219.00	0.65	142.97	673	7.0295%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17802.7047
5592050	2/10/2005	219	219.00	0.65	142.97	673	7.0295%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17802.7047
5592050	3/2/2011	219	219.00	0.65	142.97	673	7.0295%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17802.7047
5592050	5/12/2015	219	219.00	0.65	142.97	673	7.0295%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17802.7047
5592050	5/3/1996	218	218.00	0.65	142.32	679	7.0921%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17721.41382
5592050	3/31/2002	218	218.00	0.65	142.32	679	7.0921%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17721.41382
5592050	6/5/2008	218	218.00	0.65	142.32	679	7.0921%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17721.41382
5592050	4/20/1995	217	217.00	0.65	141.66	682	7.1235%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17640.12293
5592050	6/7/1997	217	217.00	0.65	141.66	682	7.1235%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17640.12293
5592050	2/4/2008	217	217.00	0.65	141.66	682	7.1235%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17640.12293
5592050	6/20/2010	216	216.00	0.65	141.01	685	7.1548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17558.83204
5592050	5/3/2013	216	216.00	0.65	141.01	685	7.1548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17558.83204
5592050	3/8/2015	216	216.00	0.65	141.01	685	7.1548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17558.83204
5592050	1/25/1993	215	215.00	0.65	140.36	688	7.1861%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17477.54115
5592050	3/14/2010	215	215.00	0.65	140.36	688	7.1861%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17477.54115
5592050	2/20/2011	215	215.00	0.65	140.36	688	7.1861%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17477.54115
5592050	3/23/1998	214	214.00	0.65	139.70	691	7.2175%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17396.25026
5592050	6/30/1998	214	214.00	0.65	139.70	691	7.2175%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17396.25026
5592050	7/7/1998	214	214.00	0.65	139.70	691	7.2175%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17396.25026
5592050	11/26/2000	214	214.00	0.65	139.70	691	7.2175%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17396.25026
5592050	3/2/1997	213	213.00	0.65	139.05	695	7.2592%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17314.95937
5592050	6/18/1998	213	213.00	0.65	139.05	695	7.2592%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17314.95937
5592050	12/6/1993	212	212.00	0.65	138.40	697	7.2801%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17233.66848
5592050	4/15/1998	212	212.00	0.65	138.40	697	7.2801%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17233.66848
5592050	6/15/1998	212	212.00	0.65	138.40	697	7.2801%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17233.66848
5592050	1/17/2007	212	212.00	0.65	138.40	697	7.2801%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17233.66848
5592050	1/23/2010	212	212.00	0.65	138.40	697	7.2801%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17233.66848
5592050	4/2/1996	211	211.00	0.65	137.75	702	7.3324%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17152.37759
5592050	2/27/2001	211	211.00	0.65	137.75	702	7.3324%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17152.37759
5592050	11/26/2004	211	211.00	0.65	137.75	702	7.3324%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17152.37759

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/25/2013	211	211.00	0.65	137.75	702	7.3324%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17152.37759
5592050	12/24/2015	211	211.00	0.65	137.75	702	7.3324%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17152.37759
5592050	4/13/2002	210	210.00	0.65	137.09	707	7.3846%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17071.0867
5592050	11/20/2003	210	210.00	0.65	137.09	707	7.3846%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17071.0867
5592050	1/4/2009	210	210.00	0.65	137.09	707	7.3846%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17071.0867
5592050	12/24/2014	210	210.00	0.65	137.09	707	7.3846%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17071.0867
5592050	4/18/1992	209	209.00	0.65	136.44	711	7.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16989.79581
5592050	7/20/1993	209	209.00	0.65	136.44	711	7.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16989.79581
5592050	3/9/1995	209	209.00	0.65	136.44	711	7.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16989.79581
5592050	6/1/1999	209	209.00	0.65	136.44	711	7.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16989.79581
5592050	4/9/2002	209	209.00	0.65	136.44	711	7.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16989.79581
5592050	5/4/2002	209	209.00	0.65	136.44	711	7.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16989.79581
5592050	4/30/2011	209	209.00	0.65	136.44	711	7.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16989.79581
5592050	6/9/1996	208	208.00	0.65	135.79	718	7.4995%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16908.50492
5592050	6/24/1998	207	207.00	0.65	135.13	719	7.5099%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16827.21404
5592050	1/5/2009	207	207.00	0.65	135.13	719	7.5099%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16827.21404
5592050	11/20/1993	206	206.00	0.65	134.48	721	7.5308%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16745.92315
5592050	5/1/2006	206	206.00	0.65	134.48	721	7.5308%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16745.92315
5592050	12/31/2010	206	206.00	0.65	134.48	721	7.5308%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16745.92315
5592050	4/11/2011	206	206.00	0.65	134.48	721	7.5308%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16745.92315
5592050	3/1/2013	206	206.00	0.65	134.48	721	7.5308%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16745.92315
5592050	12/15/1992	205	205.00	0.65	133.83	726	7.5830%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16664.63226
5592050	4/16/1998	205	205.00	0.65	133.83	726	7.5830%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16664.63226
5592050	4/19/2009	205	205.00	0.65	133.83	726	7.5830%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16664.63226
5592050	4/21/2009	205	205.00	0.65	133.83	726	7.5830%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16664.63226
5592050	3/7/2004	204	204.00	0.65	133.18	730	7.6248%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16583.34137
5592050	3/8/1993	203	203.00	0.65	132.52	731	7.6353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16502.05048
5592050	4/15/1999	203	203.00	0.65	132.52	731	7.6353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16502.05048
5592050	4/3/2008	203	203.00	0.65	132.52	731	7.6353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16502.05048
5592050	3/11/2010	203	203.00	0.65	132.52	731	7.6353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16502.05048
5592050	3/29/2010	203	203.00	0.65	132.52	731	7.6353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16502.05048
5592050	4/12/2006	202	202.00	0.65	131.87	736	7.6875%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16420.75959
5592050	6/17/2010	202	202.00	0.65	131.87	736	7.6875%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16420.75959
5592050	2/14/2011	202	202.00	0.65	131.87	736	7.6875%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16420.75959
5592050	4/15/1991	201	201.00	0.65	131.22	739	7.7188%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16339.4687
5592050	10/22/1993	201	201.00	0.65	131.22	739	7.7188%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16339.4687
5592050	5/20/2002	201	201.00	0.65	131.22	739	7.7188%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16339.4687
5592050	4/27/1993	200	200.00	0.65	130.56	742	7.7502%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16258.17781
5592050	10/18/1993	200	200.00	0.65	130.56	742	7.7502%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16258.17781
5592050	1/16/1995	200	200.00	0.65	130.56	742	7.7502%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16258.17781
5592050	4/29/1999	200	200.00	0.65	130.56	742	7.7502%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16258.17781
5592050	2/14/2007	200	200.00	0.65	130.56	742	7.7502%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16258.17781
5592050	5/18/2009	200	200.00	0.65	130.56	742	7.7502%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16258.17781
5592050	2/20/2002	199	199.00	0.65	129.91	748	7.8128%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16176.88692

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/13/2004	199	199.00	0.65	129.91	748	7.8128%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16176.88692
5592050	2/18/2008	199	199.00	0.65	129.91	748	7.8128%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16176.88692
5592050	1/3/2009	199	199.00	0.65	129.91	748	7.8128%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16176.88692
5592050	1/6/2009	199	199.00	0.65	129.91	748	7.8128%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16176.88692
5592050	4/15/1993	198	198.00	0.65	129.26	753	7.8651%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16095.59603
5592050	5/15/1996	198	198.00	0.65	129.26	753	7.8651%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16095.59603
5592050	11/30/2001	198	198.00	0.65	129.26	753	7.8651%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16095.59603
5592050	12/23/1990	197	197.00	0.65	128.61	756	7.8964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16014.30515
5592050	4/17/1994	197	197.00	0.65	128.61	756	7.8964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16014.30515
5592050	11/29/2004	197	197.00	0.65	128.61	756	7.8964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16014.30515
5592050	2/14/2009	197	197.00	0.65	128.61	756	7.8964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16014.30515
5592050	7/20/2010	197	197.00	0.65	128.61	756	7.8964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16014.30515
5592050	6/3/2013	197	197.00	0.65	128.61	756	7.8964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16014.30515
5592050	5/3/1994	196	196.00	0.65	127.95	762	7.9591%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15933.01426
5592050	3/13/1997	196	196.00	0.65	127.95	762	7.9591%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15933.01426
5592050	5/7/1999	196	196.00	0.65	127.95	762	7.9591%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15933.01426
5592050	11/2/2004	196	196.00	0.65	127.95	762	7.9591%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15933.01426
5592050	3/5/2008	196	196.00	0.65	127.95	762	7.9591%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15933.01426
5592050	4/19/1999	195	195.00	0.65	127.30	767	8.0113%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15851.72337
5592050	6/16/2002	195	195.00	0.65	127.30	767	8.0113%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15851.72337
5592050	1/1/2007	195	195.00	0.65	127.30	767	8.0113%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15851.72337
5592050	4/10/2011	195	195.00	0.65	127.30	767	8.0113%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15851.72337
5592050	2/21/2004	194	194.00	0.65	126.65	771	8.0531%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15770.43248
5592050	6/3/2008	194	194.00	0.65	126.65	771	8.0531%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15770.43248
5592050	6/20/2011	194	194.00	0.65	126.65	771	8.0531%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15770.43248
5592050	3/14/2006	193	193.00	0.65	125.99	774	8.0844%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15689.14159
5592050	11/2/2009	193	193.00	0.65	125.99	774	8.0844%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15689.14159
5592050	3/12/2014	193	193.00	0.65	125.99	774	8.0844%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15689.14159
5592050	5/30/1996	192	192.00	0.65	125.34	777	8.1157%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15607.8507
5592050	4/11/2009	192	192.00	0.65	125.34	777	8.1157%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15607.8507
5592050	2/22/2014	192	192.00	0.65	125.34	777	8.1157%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15607.8507
5592050	2/10/1991	191	191.00	0.65	124.69	780	8.1471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15526.55981
5592050	6/1/1996	191	191.00	0.65	124.69	780	8.1471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15526.55981
5592050	1/10/1998	191	191.00	0.65	124.69	780	8.1471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15526.55981
5592050	3/15/2007	191	191.00	0.65	124.69	780	8.1471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15526.55981
5592050	11/26/2009	191	191.00	0.65	124.69	780	8.1471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15526.55981
5592050	1/26/1999	190	190.00	0.65	124.04	785	8.1993%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15445.26892
5592050	2/11/2013	190	190.00	0.65	124.04	785	8.1993%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15445.26892
5592050	4/17/1995	189	189.00	0.65	123.38	787	8.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15363.97803
5592050	3/31/1998	189	189.00	0.65	123.38	787	8.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15363.97803
5592050	10/8/2000	189	189.00	0.65	123.38	787	8.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15363.97803
5592050	12/15/2009	189	189.00	0.65	123.38	787	8.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15363.97803
5592050	4/29/2013	189	189.00	0.65	123.38	787	8.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15363.97803
5592050	2/24/2001	188	188.00	0.65	122.73	792	8.2724%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15282.68714

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/10/2008	188	188.00	0.65	122.73	792	8.2724%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15282.68714
5592050	12/6/2014	188	188.00	0.65	122.73	792	8.2724%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15282.68714
5592050	1/4/2015	188	188.00	0.65	122.73	792	8.2724%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15282.68714
5592050	3/19/1991	187	187.00	0.65	122.08	796	8.3142%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15201.39625
5592050	6/7/1996	187	187.00	0.65	122.08	796	8.3142%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15201.39625
5592050	11/27/2010	187	187.00	0.65	122.08	796	8.3142%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15201.39625
5592050	2/19/1998	186	186.00	0.65	121.42	799	8.3455%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15120.10537
5592050	6/6/1999	186	186.00	0.65	121.42	799	8.3455%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15120.10537
5592050	3/11/2002	186	186.00	0.65	121.42	799	8.3455%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15120.10537
5592050	3/27/2008	186	186.00	0.65	121.42	799	8.3455%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15120.10537
5592050	7/9/2008	186	186.00	0.65	121.42	799	8.3455%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15120.10537
5592050	5/30/2013	186	186.00	0.65	121.42	799	8.3455%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15120.10537
5592050	6/17/2015	186	186.00	0.65	121.42	799	8.3455%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15120.10537
5592050	2/2/1999	185	185.00	0.65	120.77	806	8.4186%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15038.81448
5592050	2/3/2002	185	185.00	0.65	120.77	806	8.4186%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15038.81448
5592050	5/31/2002	185	185.00	0.65	120.77	806	8.4186%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15038.81448
5592050	2/9/1991	184	184.00	0.65	120.12	809	8.4500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14957.52359
5592050	11/24/1992	184	184.00	0.65	120.12	809	8.4500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14957.52359
5592050	1/13/1995	184	184.00	0.65	120.12	809	8.4500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14957.52359
5592050	4/25/1996	184	184.00	0.65	120.12	809	8.4500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14957.52359
5592050	4/6/1998	184	184.00	0.65	120.12	809	8.4500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14957.52359
5592050	5/25/1998	184	184.00	0.65	120.12	809	8.4500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14957.52359
5592050	3/30/2008	184	184.00	0.65	120.12	809	8.4500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14957.52359
5592050	12/1/2010	184	184.00	0.65	120.12	809	8.4500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14957.52359
5592050	3/15/2015	184	184.00	0.65	120.12	809	8.4500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14957.52359
5592050	3/15/2016	184	184.00	0.65	120.12	809	8.4500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14957.52359
5592050	4/1/1998	183	183.00	0.65	119.47	819	8.5544%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14876.2327
5592050	6/10/2001	183	183.00	0.65	119.47	819	8.5544%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14876.2327
5592050	12/18/2004	183	183.00	0.65	119.47	819	8.5544%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14876.2327
5592050	5/25/2006	183	183.00	0.65	119.47	819	8.5544%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14876.2327
5592050	4/4/2009	183	183.00	0.65	119.47	819	8.5544%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14876.2327
5592050	4/7/2009	183	183.00	0.65	119.47	819	8.5544%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14876.2327
5592050	3/12/2015	183	183.00	0.65	119.47	819	8.5544%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14876.2327
5592050	4/13/2006	182	182.00	0.65	118.81	826	8.6275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14794.94181
5592050	4/8/2002	181	181.00	0.65	118.16	827	8.6380%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14713.65092
5592050	12/25/2014	181	181.00	0.65	118.16	827	8.6380%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14713.65092
5592050	12/17/2004	180	180.00	0.65	117.51	829	8.6589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14632.36003
5592050	4/13/2008	180	180.00	0.65	117.51	829	8.6589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14632.36003
5592050	6/16/2011	180	180.00	0.65	117.51	829	8.6589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14632.36003
5592050	5/3/2012	180	180.00	0.65	117.51	829	8.6589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14632.36003
5592050	7/17/1993	179	179.00	0.65	116.86	833	8.7006%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14551.06914
5592050	2/6/2005	179	179.00	0.65	116.86	833	8.7006%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14551.06914
5592050	1/7/2009	179	179.00	0.65	116.86	833	8.7006%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14551.06914
5592050	1/5/2007	178	178.00	0.65	116.20	836	8.7320%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14469.77825

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	2/10/2008	178	178.00	0.65	116.20	836	8.7320%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14469.77825
5592050	6/20/1998	177	177.00	0.65	115.55	838	8.7529%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14388.48736
5592050	2/13/1999	177	177.00	0.65	115.55	838	8.7529%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14388.48736
5592050	4/14/2006	177	177.00	0.65	115.55	838	8.7529%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14388.48736
5592050	12/3/2009	177	177.00	0.65	115.55	838	8.7529%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14388.48736
5592050	3/12/2010	177	177.00	0.65	115.55	838	8.7529%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14388.48736
5592050	6/26/2010	177	177.00	0.65	115.55	838	8.7529%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14388.48736
5592050	6/14/1994	176	176.00	0.65	114.90	844	8.8155%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14307.19647
5592050	3/8/2011	176	176.00	0.65	114.90	844	8.8155%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14307.19647
5592050	12/18/1990	175	175.00	0.65	114.24	846	8.8364%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14225.90559
5592050	9/29/1993	175	175.00	0.65	114.24	846	8.8364%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14225.90559
5592050	5/12/1994	175	175.00	0.65	114.24	846	8.8364%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14225.90559
5592050	1/16/2005	175	175.00	0.65	114.24	846	8.8364%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14225.90559
5592050	2/6/2009	175	175.00	0.65	114.24	846	8.8364%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14225.90559
5592050	11/22/2009	175	175.00	0.65	114.24	846	8.8364%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14225.90559
5592050	1/26/2010	175	175.00	0.65	114.24	846	8.8364%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14225.90559
5592050	1/1/2016	175	175.00	0.65	114.24	846	8.8364%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14225.90559
5592050	2/24/2010	174	174.00	0.65	113.59	854	8.9200%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14144.6147
5592050	5/4/2012	174	174.00	0.65	113.59	854	8.9200%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14144.6147
5592050	1/7/1993	173	173.00	0.65	112.94	856	8.9409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14063.32381
5592050	7/31/1993	173	173.00	0.65	112.94	856	8.9409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14063.32381
5592050	11/14/2000	173	173.00	0.65	112.94	856	8.9409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14063.32381
5592050	6/10/2009	173	173.00	0.65	112.94	856	8.9409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14063.32381
5592050	5/14/1999	172	172.00	0.65	112.29	860	8.9827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13982.03292
5592050	2/17/2005	172	172.00	0.65	112.29	860	8.9827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13982.03292
5592050	5/22/1995	171	171.00	0.65	111.63	862	9.0036%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13900.74203
5592050	5/6/1998	171	171.00	0.65	111.63	862	9.0036%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13900.74203
5592050	7/8/2011	171	171.00	0.65	111.63	862	9.0036%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13900.74203
5592050	4/5/2014	171	171.00	0.65	111.63	862	9.0036%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13900.74203
5592050	9/17/1993	170	170.00	0.65	110.98	866	9.0453%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13819.45114
5592050	5/16/1996	170	170.00	0.65	110.98	866	9.0453%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13819.45114
5592050	1/18/1999	170	170.00	0.65	110.98	866	9.0453%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13819.45114
5592050	1/27/1999	170	170.00	0.65	110.98	866	9.0453%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13819.45114
5592050	6/12/2009	170	170.00	0.65	110.98	866	9.0453%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13819.45114
5592050	1/31/2013	170	170.00	0.65	110.98	866	9.0453%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13819.45114
5592050	5/20/1990	169	169.00	0.65	110.33	872	9.1080%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13738.16025
5592050	12/17/1992	169	169.00	0.65	110.33	872	9.1080%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13738.16025
5592050	12/3/2004	169	169.00	0.65	110.33	872	9.1080%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13738.16025
5592050	5/11/2006	169	169.00	0.65	110.33	872	9.1080%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13738.16025
5592050	3/11/2011	169	169.00	0.65	110.33	872	9.1080%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13738.16025
5592050	3/24/1993	168	168.00	0.65	109.67	877	9.1602%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13656.86936
5592050	5/9/1994	168	168.00	0.65	109.67	877	9.1602%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13656.86936
5592050	5/15/1995	168	168.00	0.65	109.67	877	9.1602%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13656.86936
5592050	8/4/1995	168	168.00	0.65	109.67	877	9.1602%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13656.86936

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/31/2006	168	168.00	0.65	109.67	877	9.1602%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13656.86936
5592050	4/15/2007	168	168.00	0.65	109.67	877	9.1602%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13656.86936
5592050	3/3/2011	168	168.00	0.65	109.67	877	9.1602%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13656.86936
5592050	6/8/2014	168	168.00	0.65	109.67	877	9.1602%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13656.86936
5592050	12/21/2004	167	167.00	0.65	109.02	885	9.2438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13575.57847
5592050	12/23/2006	167	167.00	0.65	109.02	885	9.2438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13575.57847
5592050	2/16/2008	167	167.00	0.65	109.02	885	9.2438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13575.57847
5592050	12/20/2008	167	167.00	0.65	109.02	885	9.2438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13575.57847
5592050	5/21/2002	166	166.00	0.65	108.37	889	9.2856%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13494.28758
5592050	4/30/2006	166	166.00	0.65	108.37	889	9.2856%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13494.28758
5592050	11/29/1993	165	165.00	0.65	107.72	891	9.3065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13412.9967
5592050	8/5/2000	165	165.00	0.65	107.72	891	9.3065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13412.9967
5592050	4/15/2006	165	165.00	0.65	107.72	891	9.3065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13412.9967
5592050	4/4/2008	165	165.00	0.65	107.72	891	9.3065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13412.9967
5592050	12/23/2015	165	165.00	0.65	107.72	891	9.3065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13412.9967
5592050	4/1/2004	164	164.00	0.65	107.06	896	9.3587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13331.70581
5592050	3/22/2008	164	164.00	0.65	107.06	896	9.3587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13331.70581
5592050	12/12/2010	164	164.00	0.65	107.06	896	9.3587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13331.70581
5592050	5/29/2011	164	164.00	0.65	107.06	896	9.3587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13331.70581
5592050	4/22/2013	164	164.00	0.65	107.06	896	9.3587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13331.70581
5592050	6/8/1997	163	163.00	0.65	106.41	901	9.4109%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13250.41492
5592050	5/12/1999	163	163.00	0.65	106.41	901	9.4109%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13250.41492
5592050	11/24/2009	163	163.00	0.65	106.41	901	9.4109%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13250.41492
5592050	2/23/1990	162	162.00	0.65	105.76	904	9.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13169.12403
5592050	2/8/2001	162	162.00	0.65	105.76	904	9.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13169.12403
5592050	7/9/2004	162	162.00	0.65	105.76	904	9.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13169.12403
5592050	5/4/2009	162	162.00	0.65	105.76	904	9.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13169.12403
5592050	11/21/1993	161	161.00	0.65	105.10	908	9.4840%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13087.83314
5592050	4/11/2001	161	161.00	0.65	105.10	908	9.4840%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13087.83314
5592050	5/7/2013	161	161.00	0.65	105.10	908	9.4840%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13087.83314
5592050	3/24/1991	160	160.00	0.65	104.45	911	9.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13006.54225
5592050	6/22/1995	160	160.00	0.65	104.45	911	9.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13006.54225
5592050	1/21/1999	160	160.00	0.65	104.45	911	9.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13006.54225
5592050	11/12/2000	160	160.00	0.65	104.45	911	9.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13006.54225
5592050	4/1/2002	160	160.00	0.65	104.45	911	9.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13006.54225
5592050	5/5/2002	160	160.00	0.65	104.45	911	9.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13006.54225
5592050	5/11/2009	160	160.00	0.65	104.45	911	9.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13006.54225
5592050	6/12/2014	160	160.00	0.65	104.45	911	9.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13006.54225
5592050	3/10/1995	159	159.00	0.65	103.80	919	9.5989%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12925.25136
5592050	3/24/1998	159	159.00	0.65	103.80	919	9.5989%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12925.25136
5592050	7/22/2013	159	159.00	0.65	103.80	919	9.5989%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12925.25136
5592050	1/30/1994	158	158.00	0.65	103.15	922	9.6302%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12843.96047
5592050	12/24/2003	158	158.00	0.65	103.15	922	9.6302%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12843.96047
5592050	3/8/2008	158	158.00	0.65	103.15	922	9.6302%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12843.96047

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	2/22/1990	157	157.00	0.65	102.49	925	9.6616%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12762.66958
5592050	8/5/1995	157	157.00	0.65	102.49	925	9.6616%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12762.66958
5592050	5/27/2000	157	157.00	0.65	102.49	925	9.6616%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12762.66958
5592050	3/2/2013	157	157.00	0.65	102.49	925	9.6616%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12762.66958
5592050	9/2/1993	156	156.00	0.65	101.84	929	9.7034%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12681.37869
5592050	11/25/1993	156	156.00	0.65	101.84	929	9.7034%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12681.37869
5592050	5/4/1994	156	156.00	0.65	101.84	929	9.7034%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12681.37869
5592050	4/30/1998	156	156.00	0.65	101.84	929	9.7034%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12681.37869
5592050	2/1/2014	156	156.00	0.65	101.84	929	9.7034%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12681.37869
5592050	3/27/2015	156	156.00	0.65	101.84	929	9.7034%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12681.37869
5592050	4/18/1994	155	155.00	0.65	101.19	935	9.7660%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12600.0878
5592050	12/14/2004	155	155.00	0.65	101.19	935	9.7660%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12600.0878
5592050	12/19/2004	155	155.00	0.65	101.19	935	9.7660%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12600.0878
5592050	1/26/1993	154	154.00	0.65	100.53	938	9.7974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12518.79692
5592050	1/21/1995	154	154.00	0.65	100.53	938	9.7974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12518.79692
5592050	4/21/1995	154	154.00	0.65	100.53	938	9.7974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12518.79692
5592050	6/10/1998	154	154.00	0.65	100.53	938	9.7974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12518.79692
5592050	2/27/2007	154	154.00	0.65	100.53	938	9.7974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12518.79692
5592050	4/15/2012	154	154.00	0.65	100.53	938	9.7974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12518.79692
5592050	5/9/1998	153	153.00	0.65	99.88	944	9.8600%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12437.50603
5592050	2/12/2001	153	153.00	0.65	99.88	944	9.8600%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12437.50603
5592050	5/11/2008	153	153.00	0.65	99.88	944	9.8600%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12437.50603
5592050	7/7/2011	153	153.00	0.65	99.88	944	9.8600%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12437.50603
5592050	6/9/1994	152	152.00	0.65	99.23	948	9.9018%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12356.21514
5592050	5/17/1996	152	152.00	0.65	99.23	948	9.9018%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12356.21514
5592050	4/27/1999	152	152.00	0.65	99.23	948	9.9018%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12356.21514
5592050	6/27/2007	152	152.00	0.65	99.23	948	9.9018%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12356.21514
5592050	12/28/2009	152	152.00	0.65	99.23	948	9.9018%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12356.21514
5592050	4/23/2013	152	152.00	0.65	99.23	948	9.9018%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12356.21514
5592050	7/3/1993	151	151.00	0.65	98.58	954	9.9645%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12274.92425
5592050	12/7/1993	151	151.00	0.65	98.58	954	9.9645%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12274.92425
5592050	3/25/1996	151	151.00	0.65	98.58	954	9.9645%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12274.92425
5592050	2/20/1998	151	151.00	0.65	98.58	954	9.9645%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12274.92425
5592050	9/4/2008	151	151.00	0.65	98.58	954	9.9645%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12274.92425
5592050	5/27/2009	151	151.00	0.65	98.58	954	9.9645%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12274.92425
5592050	6/16/2009	151	151.00	0.65	98.58	954	9.9645%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12274.92425
5592050	5/1/2011	151	151.00	0.65	98.58	954	9.9645%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12274.92425
5592050	3/28/2013	151	151.00	0.65	98.58	954	9.9645%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12274.92425
5592050	10/15/2014	151	151.00	0.65	98.58	954	9.9645%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12274.92425
5592050	12/4/1990	150	150.00	0.65	97.92	964	10.0689%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12193.63336
5592050	1/21/1991	150	150.00	0.65	97.92	964	10.0689%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12193.63336
5592050	5/27/1995	150	150.00	0.65	97.92	964	10.0689%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12193.63336
5592050	2/20/1997	150	150.00	0.65	97.92	964	10.0689%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12193.63336
5592050	3/3/1997	150	150.00	0.65	97.92	964	10.0689%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12193.63336

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/16/2006	150	150.00	0.65	97.92	964	10.0689%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12193.63336
5592050	4/17/2006	150	150.00	0.65	97.92	964	10.0689%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12193.63336
5592050	5/18/2010	150	150.00	0.65	97.92	964	10.0689%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12193.63336
5592050	4/11/2013	150	150.00	0.65	97.92	964	10.0689%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12193.63336
5592050	2/13/1991	149	149.00	0.65	97.27	973	10.1629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12112.34247
5592050	2/28/2001	149	149.00	0.65	97.27	973	10.1629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12112.34247
5592050	12/15/2001	149	149.00	0.65	97.27	973	10.1629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12112.34247
5592050	6/14/2003	149	149.00	0.65	97.27	973	10.1629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12112.34247
5592050	5/15/2004	149	149.00	0.65	97.27	973	10.1629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12112.34247
5592050	2/10/2009	149	149.00	0.65	97.27	973	10.1629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12112.34247
5592050	3/28/2010	149	149.00	0.65	97.27	973	10.1629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12112.34247
5592050	11/10/1994	148	148.00	0.65	96.62	980	10.2361%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12031.05158
5592050	5/30/1995	148	148.00	0.65	96.62	980	10.2361%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12031.05158
5592050	5/31/1996	148	148.00	0.65	96.62	980	10.2361%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12031.05158
5592050	6/29/1998	148	148.00	0.65	96.62	980	10.2361%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12031.05158
5592050	1/18/2007	148	148.00	0.65	96.62	980	10.2361%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12031.05158
5592050	6/26/2007	148	148.00	0.65	96.62	980	10.2361%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12031.05158
5592050	6/9/2008	148	148.00	0.65	96.62	980	10.2361%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12031.05158
5592050	3/4/2011	148	148.00	0.65	96.62	980	10.2361%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12031.05158
5592050	3/11/1997	147	147.00	0.65	95.96	988	10.3196%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11949.76069
5592050	6/21/1998	147	147.00	0.65	95.96	988	10.3196%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11949.76069
5592050	2/4/2012	147	147.00	0.65	95.96	988	10.3196%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11949.76069
5592050	6/22/1990	146	146.00	0.65	95.31	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11868.4698
5592050	1/17/1995	146	146.00	0.65	95.31	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11868.4698
5592050	4/20/1999	146	146.00	0.65	95.31	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11868.4698
5592050	3/21/2002	146	146.00	0.65	95.31	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11868.4698
5592050	5/22/2002	146	146.00	0.65	95.31	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11868.4698
5592050	3/24/2007	146	146.00	0.65	95.31	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11868.4698
5592050	1/8/2009	146	146.00	0.65	95.31	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11868.4698
5592050	11/23/2009	146	146.00	0.65	95.31	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11868.4698
5592050	11/27/2009	146	146.00	0.65	95.31	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11868.4698
5592050	1/28/2012	146	146.00	0.65	95.31	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11868.4698
5592050	5/1/2014	146	146.00	0.65	95.31	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11868.4698
5592050	11/15/1992	145	145.00	0.65	94.66	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11787.17891
5592050	4/7/1998	145	145.00	0.65	94.66	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11787.17891
5592050	2/2/2001	145	145.00	0.65	94.66	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11787.17891
5592050	6/11/2001	145	145.00	0.65	94.66	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11787.17891
5592050	3/12/2002	145	145.00	0.65	94.66	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11787.17891
5592050	3/17/2002	145	145.00	0.65	94.66	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11787.17891
5592050	6/17/2002	145	145.00	0.65	94.66	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11787.17891
5592050	12/16/2004	145	145.00	0.65	94.66	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11787.17891
5592050	6/2/2008	145	145.00	0.65	94.66	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11787.17891
5592050	4/5/2009	145	145.00	0.65	94.66	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11787.17891
5592050	1/2/2016	145	145.00	0.65	94.66	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11787.17891

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/16/1992	144	144.00	0.65	94.01	1013	10.5807%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11705.88802
5592050	6/1/2002	144	144.00	0.65	94.01	1013	10.5807%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11705.88802
5592050	4/2/2009	144	144.00	0.65	94.01	1013	10.5807%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11705.88802
5592050	4/15/2009	144	144.00	0.65	94.01	1013	10.5807%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11705.88802
5592050	12/10/2009	144	144.00	0.65	94.01	1013	10.5807%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11705.88802
5592050	1/2/2011	144	144.00	0.65	94.01	1013	10.5807%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11705.88802
5592050	6/23/2015	144	144.00	0.65	94.01	1013	10.5807%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11705.88802
5592050	3/9/1993	143	143.00	0.65	93.35	1020	10.6539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11624.59714
5592050	10/9/1993	143	143.00	0.65	93.35	1020	10.6539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11624.59714
5592050	6/4/1996	143	143.00	0.65	93.35	1020	10.6539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11624.59714
5592050	2/21/2002	143	143.00	0.65	93.35	1020	10.6539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11624.59714
5592050	4/14/2008	143	143.00	0.65	93.35	1020	10.6539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11624.59714
5592050	6/6/1993	142	142.00	0.65	92.70	1025	10.7061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11543.30625
5592050	5/23/1995	142	142.00	0.65	92.70	1025	10.7061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11543.30625
5592050	4/3/1996	142	142.00	0.65	92.70	1025	10.7061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11543.30625
5592050	10/27/2004	142	142.00	0.65	92.70	1025	10.7061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11543.30625
5592050	12/15/2004	142	142.00	0.65	92.70	1025	10.7061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11543.30625
5592050	3/16/2007	142	142.00	0.65	92.70	1025	10.7061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11543.30625
5592050	2/15/2009	142	142.00	0.65	92.70	1025	10.7061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11543.30625
5592050	4/26/2013	142	142.00	0.65	92.70	1025	10.7061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11543.30625
5592050	12/1/2001	141	141.00	0.65	92.05	1033	10.7896%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11462.01536
5592050	5/27/2002	141	141.00	0.65	92.05	1033	10.7896%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11462.01536
5592050	7/13/2008	141	141.00	0.65	92.05	1033	10.7896%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11462.01536
5592050	11/3/2009	141	141.00	0.65	92.05	1033	10.7896%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11462.01536
5592050	9/2/2010	141	141.00	0.65	92.05	1033	10.7896%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11462.01536
5592050	4/17/2012	141	141.00	0.65	92.05	1033	10.7896%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11462.01536
5592050	6/4/2013	141	141.00	0.65	92.05	1033	10.7896%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11462.01536
5592050	1/10/2016	141	141.00	0.65	92.05	1033	10.7896%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11462.01536
5592050	12/1/1993	140	140.00	0.65	91.40	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11380.72447
5592050	2/24/1994	140	140.00	0.65	91.40	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11380.72447
5592050	3/11/1995	140	140.00	0.65	91.40	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11380.72447
5592050	3/11/1998	140	140.00	0.65	91.40	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11380.72447
5592050	7/7/2000	140	140.00	0.65	91.40	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11380.72447
5592050	1/16/2001	140	140.00	0.65	91.40	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11380.72447
5592050	2/17/2001	140	140.00	0.65	91.40	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11380.72447
5592050	12/20/2001	140	140.00	0.65	91.40	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11380.72447
5592050	4/12/2002	140	140.00	0.65	91.40	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11380.72447
5592050	2/12/2005	140	140.00	0.65	91.40	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11380.72447
5592050	5/12/2008	140	140.00	0.65	91.40	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11380.72447
5592050	6/6/2008	140	140.00	0.65	91.40	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11380.72447
5592050	3/29/2009	140	140.00	0.65	91.40	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11380.72447
5592050	3/15/2010	140	140.00	0.65	91.40	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11380.72447
5592050	3/12/2011	140	140.00	0.65	91.40	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11380.72447
5592050	5/25/2011	140	140.00	0.65	91.40	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11380.72447

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	5/12/2013	140	140.00	0.65	91.40	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11380.72447
5592050	11/25/1992	139	139.00	0.65	90.74	1058	11.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11299.43358
5592050	3/22/1993	139	139.00	0.65	90.74	1058	11.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11299.43358
5592050	4/2/1993	139	139.00	0.65	90.74	1058	11.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11299.43358
5592050	4/19/1995	139	139.00	0.65	90.74	1058	11.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11299.43358
5592050	7/8/1998	139	139.00	0.65	90.74	1058	11.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11299.43358
5592050	3/15/2002	139	139.00	0.65	90.74	1058	11.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11299.43358
5592050	1/17/2005	139	139.00	0.65	90.74	1058	11.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11299.43358
5592050	2/11/2005	139	139.00	0.65	90.74	1058	11.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11299.43358
5592050	12/7/2014	139	139.00	0.65	90.74	1058	11.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11299.43358
5592050	4/28/1993	138	138.00	0.65	90.09	1067	11.1448%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11218.14269
5592050	3/26/2006	138	138.00	0.65	90.09	1067	11.1448%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11218.14269
5592050	12/21/2006	138	138.00	0.65	90.09	1067	11.1448%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11218.14269
5592050	4/12/2011	138	138.00	0.65	90.09	1067	11.1448%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11218.14269
5592050	6/28/2011	138	138.00	0.65	90.09	1067	11.1448%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11218.14269
5592050	12/19/1990	137	137.00	0.65	89.44	1072	11.1970%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11136.8518
5592050	4/29/1998	137	137.00	0.65	89.44	1072	11.1970%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11136.8518
5592050	10/9/2000	137	137.00	0.65	89.44	1072	11.1970%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11136.8518
5592050	3/8/2004	137	137.00	0.65	89.44	1072	11.1970%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11136.8518
5592050	1/27/2007	137	137.00	0.65	89.44	1072	11.1970%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11136.8518
5592050	11/28/2010	137	137.00	0.65	89.44	1072	11.1970%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11136.8518
5592050	5/2/2011	137	137.00	0.65	89.44	1072	11.1970%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11136.8518
5592050	5/5/2012	137	137.00	0.65	89.44	1072	11.1970%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11136.8518
5592050	4/17/1992	136	136.00	0.65	88.78	1080	11.2806%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11055.56091
5592050	7/14/1993	136	136.00	0.65	88.78	1080	11.2806%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11055.56091
5592050	11/30/1993	136	136.00	0.65	88.78	1080	11.2806%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11055.56091
5592050	6/3/1995	136	136.00	0.65	88.78	1080	11.2806%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11055.56091
5592050	6/12/2010	136	136.00	0.65	88.78	1080	11.2806%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11055.56091
5592050	2/14/1999	135	135.00	0.65	88.13	1085	11.3328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10974.27002
5592050	12/14/2001	135	135.00	0.65	88.13	1085	11.3328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10974.27002
5592050	2/4/2002	135	135.00	0.65	88.13	1085	11.3328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10974.27002
5592050	4/14/2002	135	135.00	0.65	88.13	1085	11.3328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10974.27002
5592050	2/24/2004	135	135.00	0.65	88.13	1085	11.3328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10974.27002
5592050	4/19/2006	135	135.00	0.65	88.13	1085	11.3328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10974.27002
5592050	4/22/2009	135	135.00	0.65	88.13	1085	11.3328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10974.27002
5592050	4/30/2013	135	135.00	0.65	88.13	1085	11.3328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10974.27002
5592050	10/23/1993	134	134.00	0.65	87.48	1093	11.4163%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10892.97913
5592050	3/8/1994	134	134.00	0.65	87.48	1093	11.4163%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10892.97913
5592050	2/27/1998	134	134.00	0.65	87.48	1093	11.4163%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10892.97913
5592050	3/25/1998	134	134.00	0.65	87.48	1093	11.4163%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10892.97913
5592050	4/18/2006	134	134.00	0.65	87.48	1093	11.4163%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10892.97913
5592050	2/5/2012	134	134.00	0.65	87.48	1093	11.4163%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10892.97913
5592050	9/30/1993	133	133.00	0.65	86.83	1099	11.4790%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10811.68825
5592050	5/18/1996	133	133.00	0.65	86.83	1099	11.4790%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10811.68825

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	5/26/1998	133	133.00	0.65	86.83	1099	11.4790%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10811.68825
5592050	3/17/2001	133	133.00	0.65	86.83	1099	11.4790%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10811.68825
5592050	4/8/2009	133	133.00	0.65	86.83	1099	11.4790%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10811.68825
5592050	3/16/2015	133	133.00	0.65	86.83	1099	11.4790%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10811.68825
5592050	6/25/2015	133	133.00	0.65	86.83	1099	11.4790%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10811.68825
5592050	3/14/1991	132	132.00	0.65	86.17	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10730.39736
5592050	3/20/1991	132	132.00	0.65	86.17	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10730.39736
5592050	7/8/1993	132	132.00	0.65	86.17	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10730.39736
5592050	12/17/1994	132	132.00	0.65	86.17	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10730.39736
5592050	4/2/1998	132	132.00	0.65	86.17	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10730.39736
5592050	5/23/2002	132	132.00	0.65	86.17	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10730.39736
5592050	2/23/2004	132	132.00	0.65	86.17	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10730.39736
5592050	4/2/2004	132	132.00	0.65	86.17	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10730.39736
5592050	12/20/2004	132	132.00	0.65	86.17	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10730.39736
5592050	4/5/2008	132	132.00	0.65	86.17	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10730.39736
5592050	9/5/2008	132	132.00	0.65	86.17	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10730.39736
5592050	5/19/2009	132	132.00	0.65	86.17	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10730.39736
5592050	7/21/2010	132	132.00	0.65	86.17	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10730.39736
5592050	3/7/1994	131	131.00	0.65	85.52	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10649.10647
5592050	4/26/1996	131	131.00	0.65	85.52	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10649.10647
5592050	7/20/1996	131	131.00	0.65	85.52	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10649.10647
5592050	4/21/1999	131	131.00	0.65	85.52	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10649.10647
5592050	11/27/2000	131	131.00	0.65	85.52	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10649.10647
5592050	12/12/2000	131	131.00	0.65	85.52	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10649.10647
5592050	4/2/2002	131	131.00	0.65	85.52	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10649.10647
5592050	1/19/2004	131	131.00	0.65	85.52	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10649.10647
5592050	12/4/2004	131	131.00	0.65	85.52	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10649.10647
5592050	12/19/2008	131	131.00	0.65	85.52	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10649.10647
5592050	3/10/2010	131	131.00	0.65	85.52	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10649.10647
5592050	4/26/2010	131	131.00	0.65	85.52	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10649.10647
5592050	4/12/2013	131	131.00	0.65	85.52	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10649.10647
5592050	7/13/2014	131	131.00	0.65	85.52	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10649.10647
5592050	6/10/2015	131	131.00	0.65	85.52	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10649.10647
5592050	1/8/1993	130	130.00	0.65	84.87	1134	11.8446%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10567.81558
5592050	11/22/1993	130	130.00	0.65	84.87	1134	11.8446%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10567.81558
5592050	5/24/1995	130	130.00	0.65	84.87	1134	11.8446%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10567.81558
5592050	1/25/1996	130	130.00	0.65	84.87	1134	11.8446%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10567.81558
5592050	4/12/2001	130	130.00	0.65	84.87	1134	11.8446%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10567.81558
5592050	4/16/2007	130	130.00	0.65	84.87	1134	11.8446%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10567.81558
5592050	10/24/2008	130	130.00	0.65	84.87	1134	11.8446%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10567.81558
5592050	1/9/2009	130	130.00	0.65	84.87	1134	11.8446%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10567.81558
5592050	6/22/2009	130	130.00	0.65	84.87	1134	11.8446%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10567.81558
5592050	4/16/1993	129	129.00	0.65	84.21	1143	11.9386%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10486.52469
5592050	4/19/1994	129	129.00	0.65	84.21	1143	11.9386%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10486.52469

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	5/5/1994	129	129.00	0.65	84.21	1143	11.9386%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10486.52469
5592050	7/12/2008	129	129.00	0.65	84.21	1143	11.9386%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10486.52469
5592050	5/5/2009	129	129.00	0.65	84.21	1143	11.9386%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10486.52469
5592050	11/29/2010	129	129.00	0.65	84.21	1143	11.9386%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10486.52469
5592050	1/3/2015	129	129.00	0.65	84.21	1143	11.9386%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10486.52469
5592050	1/1/1993	128	128.00	0.65	83.56	1150	12.0117%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10405.2338
5592050	12/15/1993	128	128.00	0.65	83.56	1150	12.0117%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10405.2338
5592050	8/9/1995	128	128.00	0.65	83.56	1150	12.0117%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10405.2338
5592050	6/28/2000	128	128.00	0.65	83.56	1150	12.0117%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10405.2338
5592050	2/13/2001	128	128.00	0.65	83.56	1150	12.0117%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10405.2338
5592050	4/12/2009	128	128.00	0.65	83.56	1150	12.0117%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10405.2338
5592050	1/9/2016	128	128.00	0.65	83.56	1150	12.0117%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10405.2338
5592050	4/16/1991	127	127.00	0.65	82.91	1157	12.0848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10323.94291
5592050	12/8/1993	127	127.00	0.65	82.91	1157	12.0848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10323.94291
5592050	5/8/1995	127	127.00	0.65	82.91	1157	12.0848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10323.94291
5592050	2/23/1997	127	127.00	0.65	82.91	1157	12.0848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10323.94291
5592050	3/16/1997	127	127.00	0.65	82.91	1157	12.0848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10323.94291
5592050	4/10/2002	127	127.00	0.65	82.91	1157	12.0848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10323.94291
5592050	4/20/2006	127	127.00	0.65	82.91	1157	12.0848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10323.94291
5592050	4/27/2013	127	127.00	0.65	82.91	1157	12.0848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10323.94291
5592050	5/8/2013	127	127.00	0.65	82.91	1157	12.0848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10323.94291
5592050	1/3/2016	127	127.00	0.65	82.91	1157	12.0848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10323.94291
5592050	3/10/1993	126	126.00	0.65	82.26	1167	12.1893%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10242.65202
5592050	11/15/2000	126	126.00	0.65	82.26	1167	12.1893%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10242.65202
5592050	3/23/2008	126	126.00	0.65	82.26	1167	12.1893%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10242.65202
5592050	4/14/2012	126	126.00	0.65	82.26	1167	12.1893%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10242.65202
5592050	3/16/2016	126	126.00	0.65	82.26	1167	12.1893%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10242.65202
5592050	11/19/1992	125	125.00	0.65	81.60	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10161.36113
5592050	1/27/1993	125	125.00	0.65	81.60	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10161.36113
5592050	7/25/1993	125	125.00	0.65	81.60	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10161.36113
5592050	1/28/1999	125	125.00	0.65	81.60	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10161.36113
5592050	6/22/2001	125	125.00	0.65	81.60	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10161.36113
5592050	10/25/2001	125	125.00	0.65	81.60	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10161.36113
5592050	3/12/2008	125	125.00	0.65	81.60	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10161.36113
5592050	3/30/2010	125	125.00	0.65	81.60	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10161.36113
5592050	6/18/2010	125	125.00	0.65	81.60	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10161.36113
5592050	2/10/2013	125	125.00	0.65	81.60	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10161.36113
5592050	6/14/2014	125	125.00	0.65	81.60	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10161.36113
5592050	11/24/2014	125	125.00	0.65	81.60	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10161.36113
5592050	12/26/2014	125	125.00	0.65	81.60	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10161.36113
5592050	10/9/1990	124	124.00	0.65	80.95	1185	12.3773%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10080.07024
5592050	10/19/1993	124	124.00	0.65	80.95	1185	12.3773%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10080.07024
5592050	12/14/1993	124	124.00	0.65	80.95	1185	12.3773%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10080.07024
5592050	1/11/1998	124	124.00	0.65	80.95	1185	12.3773%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10080.07024

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/17/1998	124	124.00	0.65	80.95	1185	12.3773%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10080.07024
5592050	1/7/2004	124	124.00	0.65	80.95	1185	12.3773%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10080.07024
5592050	5/13/2015	124	124.00	0.65	80.95	1185	12.3773%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10080.07024
5592050	2/11/1991	123	123.00	0.65	80.30	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9998.779355
5592050	6/11/1996	123	123.00	0.65	80.30	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9998.779355
5592050	2/15/1999	123	123.00	0.65	80.30	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9998.779355
5592050	5/25/2002	123	123.00	0.65	80.30	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9998.779355
5592050	6/18/2002	123	123.00	0.65	80.30	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9998.779355
5592050	11/21/2003	123	123.00	0.65	80.30	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9998.779355
5592050	12/31/2003	123	123.00	0.65	80.30	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9998.779355
5592050	3/15/2006	123	123.00	0.65	80.30	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9998.779355
5592050	4/21/2006	123	123.00	0.65	80.30	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9998.779355
5592050	4/27/2006	123	123.00	0.65	80.30	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9998.779355
5592050	3/11/2008	123	123.00	0.65	80.30	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9998.779355
5592050	5/12/2009	123	123.00	0.65	80.30	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9998.779355
5592050	11/28/2009	123	123.00	0.65	80.30	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9998.779355
5592050	5/30/2011	123	123.00	0.65	80.30	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9998.779355
5592050	1/14/1991	122	122.00	0.65	79.64	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9917.488465
5592050	9/18/1993	122	122.00	0.65	79.64	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9917.488465
5592050	1/20/1996	122	122.00	0.65	79.64	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9917.488465
5592050	5/18/2001	122	122.00	0.65	79.64	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9917.488465
5592050	2/5/2005	122	122.00	0.65	79.64	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9917.488465
5592050	4/25/2006	122	122.00	0.65	79.64	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9917.488465
5592050	5/3/2006	122	122.00	0.65	79.64	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9917.488465
5592050	4/25/2010	122	122.00	0.65	79.64	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9917.488465
5592050	5/2/2010	122	122.00	0.65	79.64	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9917.488465
5592050	6/11/2014	122	122.00	0.65	79.64	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9917.488465
5592050	4/11/2015	122	122.00	0.65	79.64	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9917.488465
5592050	5/21/1990	121	121.00	0.65	78.99	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9836.197576
5592050	3/25/1993	121	121.00	0.65	78.99	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9836.197576
5592050	2/21/1998	121	121.00	0.65	78.99	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9836.197576
5592050	4/8/1998	121	121.00	0.65	78.99	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9836.197576
5592050	4/14/1998	121	121.00	0.65	78.99	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9836.197576
5592050	6/2/2002	121	121.00	0.65	78.99	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9836.197576
5592050	11/25/2003	121	121.00	0.65	78.99	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9836.197576
5592050	4/22/2006	121	121.00	0.65	78.99	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9836.197576
5592050	4/29/2006	121	121.00	0.65	78.99	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9836.197576
5592050	3/10/2008	121	121.00	0.65	78.99	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9836.197576
5592050	4/15/2008	121	121.00	0.65	78.99	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9836.197576
5592050	6/11/2008	121	121.00	0.65	78.99	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9836.197576
5592050	4/16/2011	121	121.00	0.65	78.99	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9836.197576
5592050	10/4/2014	121	121.00	0.65	78.99	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9836.197576
5592050	11/25/2014	121	121.00	0.65	78.99	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9836.197576
5592050	1/13/1991	120	120.00	0.65	78.34	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9754.906687

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/18/1992	120	120.00	0.65	78.34	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9754.906687
5592050	5/19/1996	120	120.00	0.65	78.34	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9754.906687
5592050	1/24/1997	120	120.00	0.65	78.34	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9754.906687
5592050	1/19/1999	120	120.00	0.65	78.34	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9754.906687
5592050	3/1/2001	120	120.00	0.65	78.34	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9754.906687
5592050	3/13/2002	120	120.00	0.65	78.34	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9754.906687
5592050	5/24/2002	120	120.00	0.65	78.34	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9754.906687
5592050	4/26/2006	120	120.00	0.65	78.34	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9754.906687
5592050	1/6/2007	120	120.00	0.65	78.34	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9754.906687
5592050	1/10/2009	120	120.00	0.65	78.34	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9754.906687
5592050	12/29/2009	120	120.00	0.65	78.34	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9754.906687
5592050	3/29/2013	120	120.00	0.65	78.34	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9754.906687
5592050	7/1/2015	120	120.00	0.65	78.34	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9754.906687
5592050	11/16/1992	119	119.00	0.65	77.69	1246	13.0144%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9673.615798
5592050	5/10/1994	119	119.00	0.65	77.69	1246	13.0144%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9673.615798
5592050	5/31/1995	119	119.00	0.65	77.69	1246	13.0144%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9673.615798
5592050	2/3/1999	119	119.00	0.65	77.69	1246	13.0144%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9673.615798
5592050	4/30/1999	119	119.00	0.65	77.69	1246	13.0144%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9673.615798
5592050	3/16/2001	119	119.00	0.65	77.69	1246	13.0144%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9673.615798
5592050	12/22/2004	119	119.00	0.65	77.69	1246	13.0144%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9673.615798
5592050	4/28/2006	119	119.00	0.65	77.69	1246	13.0144%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9673.615798
5592050	3/9/2008	119	119.00	0.65	77.69	1246	13.0144%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9673.615798
5592050	4/6/2014	119	119.00	0.65	77.69	1246	13.0144%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9673.615798
5592050	10/10/1990	118	118.00	0.65	77.03	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9592.324909
5592050	3/20/1993	118	118.00	0.65	77.03	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9592.324909
5592050	7/15/1993	118	118.00	0.65	77.03	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9592.324909
5592050	8/19/1995	118	118.00	0.65	77.03	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9592.324909
5592050	3/27/1998	118	118.00	0.65	77.03	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9592.324909
5592050	5/10/1998	118	118.00	0.65	77.03	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9592.324909
5592050	6/25/1998	118	118.00	0.65	77.03	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9592.324909
5592050	5/5/1999	118	118.00	0.65	77.03	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9592.324909
5592050	11/3/2004	118	118.00	0.65	77.03	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9592.324909
5592050	2/18/2005	118	118.00	0.65	77.03	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9592.324909
5592050	3/26/2005	118	118.00	0.65	77.03	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9592.324909
5592050	4/23/2006	118	118.00	0.65	77.03	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9592.324909
5592050	4/6/2008	118	118.00	0.65	77.03	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9592.324909
5592050	11/4/2009	118	118.00	0.65	77.03	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9592.324909
5592050	12/4/2009	118	118.00	0.65	77.03	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9592.324909
5592050	4/3/2010	118	118.00	0.65	77.03	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9592.324909
5592050	5/3/2011	118	118.00	0.65	77.03	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9592.324909
5592050	5/16/2014	118	118.00	0.65	77.03	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9592.324909
5592050	11/18/1992	117	117.00	0.65	76.38	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9511.03402
5592050	10/1/1993	117	117.00	0.65	76.38	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9511.03402
5592050	5/25/1995	117	117.00	0.65	76.38	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9511.03402

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/20/1995	117	117.00	0.65	76.38	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9511.03402
5592050	6/5/1996	117	117.00	0.65	76.38	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9511.03402
5592050	3/26/1998	117	117.00	0.65	76.38	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9511.03402
5592050	5/1/1998	117	117.00	0.65	76.38	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9511.03402
5592050	6/12/2001	117	117.00	0.65	76.38	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9511.03402
5592050	2/22/2004	117	117.00	0.65	76.38	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9511.03402
5592050	12/16/2009	117	117.00	0.65	76.38	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9511.03402
5592050	3/3/2013	117	117.00	0.65	76.38	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9511.03402
5592050	3/13/2014	117	117.00	0.65	76.38	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9511.03402
5592050	8/6/1991	116	116.00	0.65	75.73	1286	13.4322%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9429.743131
5592050	11/26/1992	116	116.00	0.65	75.73	1286	13.4322%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9429.743131
5592050	12/20/1992	116	116.00	0.65	75.73	1286	13.4322%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9429.743131
5592050	6/12/1996	116	116.00	0.65	75.73	1286	13.4322%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9429.743131
5592050	5/15/1999	116	116.00	0.65	75.73	1286	13.4322%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9429.743131
5592050	3/18/2002	116	116.00	0.65	75.73	1286	13.4322%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9429.743131
5592050	3/23/2007	116	116.00	0.65	75.73	1286	13.4322%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9429.743131
5592050	2/25/2010	116	116.00	0.65	75.73	1286	13.4322%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9429.743131
5592050	11/29/1990	115	115.00	0.65	75.07	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9348.452242
5592050	4/27/1994	115	115.00	0.65	75.07	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9348.452242
5592050	5/6/1994	115	115.00	0.65	75.07	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9348.452242
5592050	1/18/1995	115	115.00	0.65	75.07	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9348.452242
5592050	3/4/1997	115	115.00	0.65	75.07	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9348.452242
5592050	2/16/1999	115	115.00	0.65	75.07	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9348.452242
5592050	5/8/1999	115	115.00	0.65	75.07	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9348.452242
5592050	3/25/2007	115	115.00	0.65	75.07	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9348.452242
5592050	2/16/2009	115	115.00	0.65	75.07	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9348.452242
5592050	1/27/2010	115	115.00	0.65	75.07	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9348.452242
5592050	4/5/2010	115	115.00	0.65	75.07	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9348.452242
5592050	6/5/2013	115	115.00	0.65	75.07	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9348.452242
5592050	1/28/1993	114	114.00	0.65	74.42	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9267.161353
5592050	3/21/1993	114	114.00	0.65	74.42	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9267.161353
5592050	12/9/1993	114	114.00	0.65	74.42	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9267.161353
5592050	6/6/1996	114	114.00	0.65	74.42	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9267.161353
5592050	3/4/2002	114	114.00	0.65	74.42	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9267.161353
5592050	3/25/2006	114	114.00	0.65	74.42	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9267.161353
5592050	4/24/2006	114	114.00	0.65	74.42	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9267.161353
5592050	3/3/2007	114	114.00	0.65	74.42	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9267.161353
5592050	6/28/2007	114	114.00	0.65	74.42	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9267.161353
5592050	6/21/2011	114	114.00	0.65	74.42	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9267.161353
5592050	2/23/2014	114	114.00	0.65	74.42	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9267.161353
5592050	5/2/2014	114	114.00	0.65	74.42	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9267.161353
5592050	4/29/1993	113	113.00	0.65	73.77	1318	13.7665%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9185.870464
5592050	11/23/1993	113	113.00	0.65	73.77	1318	13.7665%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9185.870464
5592050	2/6/1997	113	113.00	0.65	73.77	1318	13.7665%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9185.870464

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	3/18/1997	113	113.00	0.65	73.77	1318	13.7665%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9185.870464
5592050	3/13/2008	113	113.00	0.65	73.77	1318	13.7665%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9185.870464
5592050	2/9/2009	113	113.00	0.65	73.77	1318	13.7665%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9185.870464
5592050	4/16/2009	113	113.00	0.65	73.77	1318	13.7665%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9185.870464
5592050	5/15/2014	113	113.00	0.65	73.77	1318	13.7665%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9185.870464
5592050	4/19/1992	112	112.00	0.65	73.12	1326	13.8500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9104.579575
5592050	1/31/1994	112	112.00	0.65	73.12	1326	13.8500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9104.579575
5592050	3/12/1995	112	112.00	0.65	73.12	1326	13.8500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9104.579575
5592050	6/20/2000	112	112.00	0.65	73.12	1326	13.8500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9104.579575
5592050	12/2/2010	112	112.00	0.65	73.12	1326	13.8500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9104.579575
5592050	5/1/2013	112	112.00	0.65	73.12	1326	13.8500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9104.579575
5592050	5/13/2013	112	112.00	0.65	73.12	1326	13.8500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9104.579575
5592050	5/21/2013	112	112.00	0.65	73.12	1326	13.8500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9104.579575
5592050	5/13/1994	111	111.00	0.65	72.46	1334	13.9336%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9023.288686
5592050	2/3/2001	111	111.00	0.65	72.46	1334	13.9336%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9023.288686
5592050	11/23/2003	111	111.00	0.65	72.46	1334	13.9336%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9023.288686
5592050	1/18/2005	111	111.00	0.65	72.46	1334	13.9336%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9023.288686
5592050	1/19/2007	111	111.00	0.65	72.46	1334	13.9336%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9023.288686
5592050	3/13/2011	111	111.00	0.65	72.46	1334	13.9336%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9023.288686
5592050	12/28/2014	111	111.00	0.65	72.46	1334	13.9336%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9023.288686
5592050	1/2/1991	110	110.00	0.65	71.81	1341	14.0067%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8941.997797
5592050	5/15/1991	110	110.00	0.65	71.81	1341	14.0067%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8941.997797
5592050	5/20/1996	110	110.00	0.65	71.81	1341	14.0067%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8941.997797
5592050	1/2/2005	110	110.00	0.65	71.81	1341	14.0067%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8941.997797
5592050	3/28/2006	110	110.00	0.65	71.81	1341	14.0067%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8941.997797
5592050	3/16/2010	110	110.00	0.65	71.81	1341	14.0067%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8941.997797
5592050	6/27/2010	110	110.00	0.65	71.81	1341	14.0067%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8941.997797
5592050	6/4/2014	110	110.00	0.65	71.81	1341	14.0067%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8941.997797
5592050	10/16/2014	110	110.00	0.65	71.81	1341	14.0067%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8941.997797
5592050	10/24/1993	109	109.00	0.65	71.16	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8860.706908
5592050	4/24/1995	109	109.00	0.65	71.16	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8860.706908
5592050	4/22/1999	109	109.00	0.65	71.16	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8860.706908
5592050	3/9/2004	109	109.00	0.65	71.16	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8860.706908
5592050	11/12/2004	109	109.00	0.65	71.16	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8860.706908
5592050	2/11/2008	109	109.00	0.65	71.16	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8860.706908
5592050	3/24/2008	109	109.00	0.65	71.16	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8860.706908
5592050	12/26/2008	109	109.00	0.65	71.16	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8860.706908
5592050	5/6/2009	109	109.00	0.65	71.16	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8860.706908
5592050	12/30/2009	109	109.00	0.65	71.16	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8860.706908
5592050	5/17/2010	109	109.00	0.65	71.16	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8860.706908
5592050	3/15/2011	109	109.00	0.65	71.16	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8860.706908
5592050	5/7/2012	109	109.00	0.65	71.16	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8860.706908
5592050	1/14/2013	109	109.00	0.65	71.16	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8860.706908
5592050	6/24/2015	109	109.00	0.65	71.16	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8860.706908

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	1/4/2016	109	109.00	0.65	71.16	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8860.706908
5592050	1/22/1991	108	108.00	0.65	70.50	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8779.416019
5592050	3/25/1991	108	108.00	0.65	70.50	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8779.416019
5592050	3/17/1997	108	108.00	0.65	70.50	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8779.416019
5592050	6/7/1999	108	108.00	0.65	70.50	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8779.416019
5592050	11/16/2000	108	108.00	0.65	70.50	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8779.416019
5592050	6/19/2002	108	108.00	0.65	70.50	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8779.416019
5592050	11/4/2004	108	108.00	0.65	70.50	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8779.416019
5592050	3/27/2006	108	108.00	0.65	70.50	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8779.416019
5592050	12/2/2006	108	108.00	0.65	70.50	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8779.416019
5592050	2/15/2008	108	108.00	0.65	70.50	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8779.416019
5592050	11/29/2009	108	108.00	0.65	70.50	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8779.416019
5592050	12/8/2014	108	108.00	0.65	70.50	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8779.416019
5592050	11/20/1992	107	107.00	0.65	69.85	1378	14.3931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8698.12513
5592050	1/3/1993	107	107.00	0.65	69.85	1378	14.3931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8698.12513
5592050	4/20/1994	107	107.00	0.65	69.85	1378	14.3931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8698.12513
5592050	10/10/2000	107	107.00	0.65	69.85	1378	14.3931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8698.12513
5592050	3/2/2001	107	107.00	0.65	69.85	1378	14.3931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8698.12513
5592050	3/19/2002	107	107.00	0.65	69.85	1378	14.3931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8698.12513
5592050	4/15/2002	107	107.00	0.65	69.85	1378	14.3931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8698.12513
5592050	4/16/2008	107	107.00	0.65	69.85	1378	14.3931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8698.12513
5592050	2/18/2009	107	107.00	0.65	69.85	1378	14.3931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8698.12513
5592050	1/12/2014	107	107.00	0.65	69.85	1378	14.3931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8698.12513
5592050	12/19/1992	106	106.00	0.65	69.20	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8616.83424
5592050	1/9/1993	106	106.00	0.65	69.20	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8616.83424
5592050	4/21/1994	106	106.00	0.65	69.20	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8616.83424
5592050	12/21/2001	106	106.00	0.65	69.20	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8616.83424
5592050	5/26/2002	106	106.00	0.65	69.20	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8616.83424
5592050	4/3/2004	106	106.00	0.65	69.20	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8616.83424
5592050	12/6/2004	106	106.00	0.65	69.20	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8616.83424
5592050	2/28/2007	106	106.00	0.65	69.20	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8616.83424
5592050	3/2/2008	106	106.00	0.65	69.20	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8616.83424
5592050	4/9/2009	106	106.00	0.65	69.20	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8616.83424
5592050	4/23/2009	106	106.00	0.65	69.20	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8616.83424
5592050	9/12/2010	106	106.00	0.65	69.20	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8616.83424
5592050	10/13/2014	106	106.00	0.65	69.20	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8616.83424
5592050	3/21/1991	105	105.00	0.65	68.55	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8535.543351
5592050	4/3/1993	105	105.00	0.65	68.55	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8535.543351
5592050	12/10/1993	105	105.00	0.65	68.55	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8535.543351
5592050	6/1/1995	105	105.00	0.65	68.55	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8535.543351
5592050	3/19/1997	105	105.00	0.65	68.55	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8535.543351
5592050	3/12/1998	105	105.00	0.65	68.55	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8535.543351
5592050	12/5/2004	105	105.00	0.65	68.55	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8535.543351
5592050	1/28/2007	105	105.00	0.65	68.55	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8535.543351

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/25/2008	105	105.00	0.65	68.55	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8535.543351
5592050	2/17/2009	105	105.00	0.65	68.55	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8535.543351
5592050	5/20/2009	105	105.00	0.65	68.55	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8535.543351
5592050	6/13/2009	105	105.00	0.65	68.55	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8535.543351
5592050	3/17/2015	105	105.00	0.65	68.55	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8535.543351
5592050	3/28/2015	105	105.00	0.65	68.55	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8535.543351
5592050	11/17/1992	104	104.00	0.65	67.89	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8454.252462
5592050	5/26/1995	104	104.00	0.65	67.89	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8454.252462
5592050	6/2/1995	104	104.00	0.65	67.89	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8454.252462
5592050	2/18/2001	104	104.00	0.65	67.89	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8454.252462
5592050	4/11/2002	104	104.00	0.65	67.89	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8454.252462
5592050	6/3/2002	104	104.00	0.65	67.89	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8454.252462
5592050	3/25/2005	104	104.00	0.65	67.89	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8454.252462
5592050	1/2/2007	104	104.00	0.65	67.89	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8454.252462
5592050	3/14/2008	104	104.00	0.65	67.89	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8454.252462
5592050	6/17/2009	104	104.00	0.65	67.89	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8454.252462
5592050	4/8/2010	104	104.00	0.65	67.89	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8454.252462
5592050	9/11/2010	104	104.00	0.65	67.89	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8454.252462
5592050	1/29/2012	104	104.00	0.65	67.89	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8454.252462
5592050	5/8/2012	104	104.00	0.65	67.89	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8454.252462
5592050	2/12/2013	104	104.00	0.65	67.89	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8454.252462
5592050	6/5/2014	104	104.00	0.65	67.89	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8454.252462
5592050	12/27/2014	104	104.00	0.65	67.89	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8454.252462
5592050	12/25/2015	104	104.00	0.65	67.89	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8454.252462
5592050	8/2/1993	103	103.00	0.65	67.24	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8372.961573
5592050	6/25/1994	103	103.00	0.65	67.24	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8372.961573
5592050	2/22/1998	103	103.00	0.65	67.24	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8372.961573
5592050	2/17/1999	103	103.00	0.65	67.24	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8372.961573
5592050	6/20/2001	103	103.00	0.65	67.24	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8372.961573
5592050	3/14/2002	103	103.00	0.65	67.24	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8372.961573
5592050	2/25/2004	103	103.00	0.65	67.24	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8372.961573
5592050	4/7/2008	103	103.00	0.65	67.24	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8372.961573
5592050	12/31/2009	103	103.00	0.65	67.24	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8372.961573
5592050	3/4/2013	103	103.00	0.65	67.24	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8372.961573
5592050	5/2/2013	103	103.00	0.65	67.24	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8372.961573
5592050	7/21/1993	102	102.00	0.65	66.59	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8291.670684
5592050	1/22/1995	102	102.00	0.65	66.59	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8291.670684
5592050	4/4/1996	102	102.00	0.65	66.59	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8291.670684
5592050	6/8/1996	102	102.00	0.65	66.59	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8291.670684
5592050	3/15/1998	102	102.00	0.65	66.59	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8291.670684
5592050	5/2/1998	102	102.00	0.65	66.59	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8291.670684
5592050	3/22/2002	102	102.00	0.65	66.59	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8291.670684
5592050	4/4/2006	102	102.00	0.65	66.59	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8291.670684
5592050	4/17/2007	102	102.00	0.65	66.59	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8291.670684

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	3/25/2008	102	102.00	0.65	66.59	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8291.670684
5592050	5/26/2009	102	102.00	0.65	66.59	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8291.670684
5592050	3/9/2010	102	102.00	0.65	66.59	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8291.670684
5592050	7/26/2010	102	102.00	0.65	66.59	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8291.670684
5592050	3/16/2011	102	102.00	0.65	66.59	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8291.670684
5592050	5/12/1991	101	101.00	0.65	65.94	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8210.379795
5592050	12/29/1992	101	101.00	0.65	65.94	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8210.379795
5592050	3/26/1993	101	101.00	0.65	65.94	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8210.379795
5592050	6/7/1993	101	101.00	0.65	65.94	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8210.379795
5592050	9/12/1993	101	101.00	0.65	65.94	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8210.379795
5592050	11/24/1993	101	101.00	0.65	65.94	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8210.379795
5592050	2/1/1994	101	101.00	0.65	65.94	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8210.379795
5592050	4/22/1994	101	101.00	0.65	65.94	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8210.379795
5592050	6/15/1994	101	101.00	0.65	65.94	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8210.379795
5592050	1/26/1996	101	101.00	0.65	65.94	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8210.379795
5592050	4/9/1998	101	101.00	0.65	65.94	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8210.379795
5592050	5/4/2011	101	101.00	0.65	65.94	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8210.379795
5592050	5/6/2012	101	101.00	0.65	65.94	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8210.379795
5592050	3/11/2013	101	101.00	0.65	65.94	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8210.379795
5592050	2/2/1991	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	5/13/1993	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	5/21/1996	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	6/13/1996	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	2/1/1997	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	12/13/2000	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	1/17/2004	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	7/10/2004	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	3/23/2005	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	12/24/2006	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	9/17/2008	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	12/21/2008	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	1/11/2009	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	5/28/2009	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	11/5/2009	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	12/8/2009	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	12/17/2009	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	1/20/2010	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	4/13/2011	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	6/17/2011	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	4/7/2014	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	9/11/2014	100	100.00	0.65	65.28	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8129.088906
5592050	11/21/1992	99	99.00	0.65	64.63	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8047.798017
5592050	3/11/1993	99	99.00	0.65	64.63	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8047.798017
5592050	4/30/1993	99	99.00	0.65	64.63	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8047.798017

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/9/1997	99	99.00	0.65	64.63	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8047.798017
5592050	11/7/2000	99	99.00	0.65	64.63	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8047.798017
5592050	1/19/2005	99	99.00	0.65	64.63	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8047.798017
5592050	2/21/2005	99	99.00	0.65	64.63	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8047.798017
5592050	5/31/2011	99	99.00	0.65	64.63	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8047.798017
5592050	4/18/2012	99	99.00	0.65	64.63	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8047.798017
5592050	3/5/2013	99	99.00	0.65	64.63	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8047.798017
5592050	5/14/2013	99	99.00	0.65	64.63	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8047.798017
5592050	8/23/2013	99	99.00	0.65	64.63	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8047.798017
5592050	1/11/2014	99	99.00	0.65	64.63	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8047.798017
5592050	1/11/2016	99	99.00	0.65	64.63	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8047.798017
5592050	4/21/1990	98	98.00	0.65	63.98	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7966.507128
5592050	5/22/1990	98	98.00	0.65	63.98	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7966.507128
5592050	2/15/1991	98	98.00	0.65	63.98	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7966.507128
5592050	1/2/1993	98	98.00	0.65	63.98	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7966.507128
5592050	9/9/1997	98	98.00	0.65	63.98	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7966.507128
5592050	5/27/1998	98	98.00	0.65	63.98	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7966.507128
5592050	6/13/2001	98	98.00	0.65	63.98	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7966.507128
5592050	3/6/2002	98	98.00	0.65	63.98	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7966.507128
5592050	6/20/2002	98	98.00	0.65	63.98	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7966.507128
5592050	4/2/2006	98	98.00	0.65	63.98	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7966.507128
5592050	3/31/2010	98	98.00	0.65	63.98	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7966.507128
5592050	4/7/2010	98	98.00	0.65	63.98	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7966.507128
5592050	6/28/2010	98	98.00	0.65	63.98	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7966.507128
5592050	3/14/2011	98	98.00	0.65	63.98	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7966.507128
5592050	3/30/2013	98	98.00	0.65	63.98	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7966.507128
5592050	6/6/2013	98	98.00	0.65	63.98	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7966.507128
5592050	5/3/2014	98	98.00	0.65	63.98	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7966.507128
5592050	5/11/1991	97	97.00	0.65	63.32	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7885.216239
5592050	11/27/1992	97	97.00	0.65	63.32	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7885.216239
5592050	12/21/1992	97	97.00	0.65	63.32	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7885.216239
5592050	9/5/1993	97	97.00	0.65	63.32	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7885.216239
5592050	12/16/1993	97	97.00	0.65	63.32	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7885.216239
5592050	3/9/1994	97	97.00	0.65	63.32	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7885.216239
5592050	5/11/1994	97	97.00	0.65	63.32	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7885.216239
5592050	4/27/1996	97	97.00	0.65	63.32	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7885.216239
5592050	3/5/1997	97	97.00	0.65	63.32	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7885.216239
5592050	4/18/1998	97	97.00	0.65	63.32	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7885.216239
5592050	5/11/1998	97	97.00	0.65	63.32	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7885.216239
5592050	2/5/2002	97	97.00	0.65	63.32	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7885.216239
5592050	4/3/2002	97	97.00	0.65	63.32	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7885.216239
5592050	3/16/2006	97	97.00	0.65	63.32	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7885.216239
5592050	3/26/2007	97	97.00	0.65	63.32	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7885.216239
5592050	3/15/2008	97	97.00	0.65	63.32	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7885.216239

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	5/19/2010	97	97.00	0.65	63.32	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7885.216239
5592050	5/14/2011	97	97.00	0.65	63.32	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7885.216239
5592050	6/29/2013	97	97.00	0.65	63.32	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7885.216239
5592050	1/5/2016	97	97.00	0.65	63.32	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7885.216239
5592050	6/8/1990	96	96.00	0.65	62.67	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7803.92535
5592050	9/19/1993	96	96.00	0.65	62.67	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7803.92535
5592050	2/28/1998	96	96.00	0.65	62.67	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7803.92535
5592050	3/3/2001	96	96.00	0.65	62.67	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7803.92535
5592050	5/26/2001	96	96.00	0.65	62.67	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7803.92535
5592050	3/7/2002	96	96.00	0.65	62.67	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7803.92535
5592050	5/12/2003	96	96.00	0.65	62.67	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7803.92535
5592050	12/23/2004	96	96.00	0.65	62.67	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7803.92535
5592050	2/20/2005	96	96.00	0.65	62.67	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7803.92535
5592050	5/13/2008	96	96.00	0.65	62.67	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7803.92535
5592050	7/8/2008	96	96.00	0.65	62.67	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7803.92535
5592050	4/17/2009	96	96.00	0.65	62.67	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7803.92535
5592050	12/11/2009	96	96.00	0.65	62.67	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7803.92535
5592050	4/4/2010	96	96.00	0.65	62.67	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7803.92535
5592050	1/13/1993	95	95.00	0.65	62.02	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7722.634461
5592050	1/12/1998	95	95.00	0.65	62.02	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7722.634461
5592050	3/14/1998	95	95.00	0.65	62.02	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7722.634461
5592050	2/19/2001	95	95.00	0.65	62.02	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7722.634461
5592050	12/22/2008	95	95.00	0.65	62.02	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7722.634461
5592050	5/7/2009	95	95.00	0.65	62.02	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7722.634461
5592050	12/5/2009	95	95.00	0.65	62.02	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7722.634461
5592050	3/17/2010	95	95.00	0.65	62.02	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7722.634461
5592050	3/17/2011	95	95.00	0.65	62.02	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7722.634461
5592050	2/6/2012	95	95.00	0.65	62.02	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7722.634461
5592050	6/28/2013	95	95.00	0.65	62.02	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7722.634461
5592050	12/20/1990	94	94.00	0.65	61.37	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7641.343572
5592050	7/27/1992	94	94.00	0.65	61.37	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7641.343572
5592050	1/29/1993	94	94.00	0.65	61.37	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7641.343572
5592050	5/14/1994	94	94.00	0.65	61.37	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7641.343572
5592050	4/22/1995	94	94.00	0.65	61.37	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7641.343572
5592050	3/20/1997	94	94.00	0.65	61.37	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7641.343572
5592050	6/15/1999	94	94.00	0.65	61.37	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7641.343572
5592050	12/22/2001	94	94.00	0.65	61.37	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7641.343572
5592050	5/5/2003	94	94.00	0.65	61.37	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7641.343572
5592050	2/19/2005	94	94.00	0.65	61.37	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7641.343572
5592050	3/24/2005	94	94.00	0.65	61.37	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7641.343572
5592050	2/26/2010	94	94.00	0.65	61.37	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7641.343572
5592050	5/6/2011	94	94.00	0.65	61.37	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7641.343572
5592050	4/13/2013	94	94.00	0.65	61.37	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7641.343572
5592050	5/17/2014	94	94.00	0.65	61.37	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7641.343572

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/29/2014	94	94.00	0.65	61.37	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7641.343572
5592050	1/5/2015	94	94.00	0.65	61.37	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7641.343572
5592050	4/12/2015	94	94.00	0.65	61.37	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7641.343572
5592050	5/14/2015	94	94.00	0.65	61.37	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7641.343572
5592050	3/17/2016	94	94.00	0.65	61.37	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7641.343572
5592050	2/12/1991	93	93.00	0.65	60.71	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7560.052683
5592050	3/15/1991	93	93.00	0.65	60.71	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7560.052683
5592050	3/26/1991	93	93.00	0.65	60.71	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7560.052683
5592050	10/2/1993	93	93.00	0.65	60.71	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7560.052683
5592050	2/25/1994	93	93.00	0.65	60.71	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7560.052683
5592050	3/13/1995	93	93.00	0.65	60.71	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7560.052683
5592050	6/30/1995	93	93.00	0.65	60.71	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7560.052683
5592050	3/12/1997	93	93.00	0.65	60.71	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7560.052683
5592050	5/16/1999	93	93.00	0.65	60.71	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7560.052683
5592050	10/24/2001	93	93.00	0.65	60.71	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7560.052683
5592050	4/9/2008	93	93.00	0.65	60.71	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7560.052683
5592050	4/17/2008	93	93.00	0.65	60.71	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7560.052683
5592050	4/1/2009	93	93.00	0.65	60.71	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7560.052683
5592050	6/23/2009	93	93.00	0.65	60.71	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7560.052683
5592050	11/30/2009	93	93.00	0.65	60.71	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7560.052683
5592050	12/18/2009	93	93.00	0.65	60.71	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7560.052683
5592050	4/27/2010	93	93.00	0.65	60.71	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7560.052683
5592050	1/10/1993	92	92.00	0.65	60.06	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7478.761794
5592050	4/4/1993	92	92.00	0.65	60.06	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7478.761794
5592050	10/25/1993	92	92.00	0.65	60.06	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7478.761794
5592050	5/22/1996	92	92.00	0.65	60.06	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7478.761794
5592050	5/23/1996	92	92.00	0.65	60.06	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7478.761794
5592050	3/18/2001	92	92.00	0.65	60.06	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7478.761794
5592050	6/21/2001	92	92.00	0.65	60.06	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7478.761794
5592050	3/23/2002	92	92.00	0.65	60.06	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7478.761794
5592050	10/28/2004	92	92.00	0.65	60.06	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7478.761794
5592050	1/20/2005	92	92.00	0.65	60.06	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7478.761794
5592050	4/13/2005	92	92.00	0.65	60.06	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7478.761794
5592050	2/26/2008	92	92.00	0.65	60.06	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7478.761794
5592050	4/8/2008	92	92.00	0.65	60.06	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7478.761794
5592050	4/24/2009	92	92.00	0.65	60.06	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7478.761794
5592050	4/6/2010	92	92.00	0.65	60.06	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7478.761794
5592050	9/5/2010	92	92.00	0.65	60.06	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7478.761794
5592050	1/3/2011	92	92.00	0.65	60.06	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7478.761794
5592050	6/11/2015	92	92.00	0.65	60.06	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7478.761794
5592050	2/15/1990	91	91.00	0.65	59.41	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7397.470905
5592050	4/17/1993	91	91.00	0.65	59.41	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7397.470905
5592050	4/20/1993	91	91.00	0.65	59.41	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7397.470905
5592050	4/23/1995	91	91.00	0.65	59.41	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7397.470905

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	3/16/1998	91	91.00	0.65	59.41	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7397.470905
5592050	2/22/2002	91	91.00	0.65	59.41	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7397.470905
5592050	6/4/2002	91	91.00	0.65	59.41	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7397.470905
5592050	11/5/2004	91	91.00	0.65	59.41	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7397.470905
5592050	3/26/2008	91	91.00	0.65	59.41	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7397.470905
5592050	1/28/2010	91	91.00	0.65	59.41	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7397.470905
5592050	5/5/2011	91	91.00	0.65	59.41	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7397.470905
5592050	1/23/2012	91	91.00	0.65	59.41	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7397.470905
5592050	10/8/2014	91	91.00	0.65	59.41	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7397.470905
5592050	10/17/2014	91	91.00	0.65	59.41	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7397.470905
5592050	12/9/2014	91	91.00	0.65	59.41	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7397.470905
5592050	1/6/2016	91	91.00	0.65	59.41	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7397.470905
5592050	12/24/1990	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	1/3/1991	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	2/19/1991	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	2/22/1993	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	3/27/1993	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	6/11/1993	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	7/4/1993	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	12/18/1993	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	2/2/1994	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	2/22/1994	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	4/23/1994	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	11/22/1994	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	1/28/1995	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	6/18/1996	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	3/13/1998	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	6/26/1998	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	1/20/1999	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	5/1/1999	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	6/22/2000	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	5/31/2001	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	12/23/2001	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	5/16/2004	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	1/20/2007	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	2/15/2007	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	3/17/2007	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	3/1/2008	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	12/23/2008	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	2/27/2009	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	6/22/2011	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	6/29/2011	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	3/6/2013	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016
5592050	4/8/2014	90	90.00	0.65	58.75	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7316.180016

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/23/1990	89	89.00	0.65	58.10	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7234.889126
5592050	1/31/1993	89	89.00	0.65	58.10	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7234.889126
5592050	6/23/1995	89	89.00	0.65	58.10	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7234.889126
5592050	2/24/1997	89	89.00	0.65	58.10	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7234.889126
5592050	3/6/1997	89	89.00	0.65	58.10	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7234.889126
5592050	2/23/1998	89	89.00	0.65	58.10	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7234.889126
5592050	2/18/1999	89	89.00	0.65	58.10	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7234.889126
5592050	11/28/2000	89	89.00	0.65	58.10	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7234.889126
5592050	6/21/2002	89	89.00	0.65	58.10	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7234.889126
5592050	1/20/2004	89	89.00	0.65	58.10	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7234.889126
5592050	2/26/2004	89	89.00	0.65	58.10	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7234.889126
5592050	1/8/2007	89	89.00	0.65	58.10	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7234.889126
5592050	1/21/2007	89	89.00	0.65	58.10	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7234.889126
5592050	4/17/2011	89	89.00	0.65	58.10	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7234.889126
5592050	6/4/1995	88	88.00	0.65	57.45	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7153.598237
5592050	5/24/1996	88	88.00	0.65	57.45	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7153.598237
5592050	5/25/1996	88	88.00	0.65	57.45	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7153.598237
5592050	2/4/2001	88	88.00	0.65	57.45	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7153.598237
5592050	11/22/2003	88	88.00	0.65	57.45	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7153.598237
5592050	11/26/2003	88	88.00	0.65	57.45	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7153.598237
5592050	12/24/2004	88	88.00	0.65	57.45	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7153.598237
5592050	5/12/2006	88	88.00	0.65	57.45	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7153.598237
5592050	1/7/2007	88	88.00	0.65	57.45	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7153.598237
5592050	1/9/2008	88	88.00	0.65	57.45	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7153.598237
5592050	2/12/2008	88	88.00	0.65	57.45	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7153.598237
5592050	1/12/2009	88	88.00	0.65	57.45	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7153.598237
5592050	5/21/2009	88	88.00	0.65	57.45	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7153.598237
5592050	5/30/2009	88	88.00	0.65	57.45	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7153.598237
5592050	11/6/2009	88	88.00	0.65	57.45	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7153.598237
5592050	12/2/2009	88	88.00	0.65	57.45	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7153.598237
5592050	5/15/2013	88	88.00	0.65	57.45	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7153.598237
5592050	11/28/1992	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	12/22/1992	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	1/14/1993	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	5/1/1993	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	5/5/1993	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	7/26/1993	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	12/17/1993	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	4/25/1995	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	1/21/1996	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	6/14/1996	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	1/28/1998	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	1/29/1999	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	10/4/2000	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	3/27/2005	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	4/18/2007	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	6/12/2008	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	2/19/2009	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	3/18/2011	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	6/11/2011	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	11/29/2011	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	2/1/2013	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	6/15/2014	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	3/29/2015	87	87.00	0.65	56.80	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7072.307348
5592050	3/12/1993	86	86.00	0.65	56.14	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6991.016459
5592050	4/19/1993	86	86.00	0.65	56.14	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6991.016459
5592050	4/19/1998	86	86.00	0.65	56.14	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6991.016459
5592050	5/28/2000	86	86.00	0.65	56.14	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6991.016459
5592050	3/4/2001	86	86.00	0.65	56.14	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6991.016459
5592050	6/1/2001	86	86.00	0.65	56.14	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6991.016459
5592050	4/16/2002	86	86.00	0.65	56.14	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6991.016459
5592050	5/26/2008	86	86.00	0.65	56.14	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6991.016459
5592050	12/19/2009	86	86.00	0.65	56.14	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6991.016459
5592050	3/8/2010	86	86.00	0.65	56.14	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6991.016459
5592050	5/3/2010	86	86.00	0.65	56.14	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6991.016459
5592050	6/7/2013	86	86.00	0.65	56.14	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6991.016459
5592050	7/2/2015	86	86.00	0.65	56.14	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6991.016459
5592050	1/7/2016	86	86.00	0.65	56.14	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6991.016459
5592050	1/23/1991	85	85.00	0.65	55.49	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6909.72557
5592050	1/30/1993	85	85.00	0.65	55.49	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6909.72557
5592050	2/1/1993	85	85.00	0.65	55.49	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6909.72557
5592050	4/5/1993	85	85.00	0.65	55.49	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6909.72557
5592050	10/10/1993	85	85.00	0.65	55.49	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6909.72557
5592050	12/11/1993	85	85.00	0.65	55.49	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6909.72557
5592050	4/24/1994	85	85.00	0.65	55.49	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6909.72557
5592050	2/7/1997	85	85.00	0.65	55.49	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6909.72557
5592050	5/12/1998	85	85.00	0.65	55.49	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6909.72557
5592050	2/4/1999	85	85.00	0.65	55.49	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6909.72557
5592050	10/11/2000	85	85.00	0.65	55.49	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6909.72557
5592050	1/1/2004	85	85.00	0.65	55.49	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6909.72557
5592050	1/8/2004	85	85.00	0.65	55.49	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6909.72557
5592050	3/9/2006	85	85.00	0.65	55.49	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6909.72557
5592050	3/31/2009	85	85.00	0.65	55.49	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6909.72557
5592050	4/18/2009	85	85.00	0.65	55.49	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6909.72557
5592050	12/3/2010	85	85.00	0.65	55.49	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6909.72557
5592050	5/22/2013	85	85.00	0.65	55.49	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6909.72557
5592050	4/13/2015	85	85.00	0.65	55.49	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6909.72557
5592050	1/8/2016	85	85.00	0.65	55.49	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6909.72557

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	3/27/1991	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	4/20/1992	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	4/9/1993	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	5/15/1994	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	3/1/1998	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	4/23/1999	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	9/26/2000	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	11/17/2000	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	5/27/2001	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	2/6/2002	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	3/24/2002	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	6/5/2002	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	6/22/2002	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	1/4/2007	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	1/29/2007	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	5/29/2009	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	12/1/2009	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	1/30/2012	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	2/13/2013	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	3/10/2013	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	3/14/2014	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	5/4/2014	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	3/18/2015	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	5/31/2015	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	1/12/2016	84	84.00	0.65	54.84	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6828.434681
5592050	12/5/1990	83	83.00	0.65	54.18	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6747.143792
5592050	6/8/1993	83	83.00	0.65	54.18	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6747.143792
5592050	9/20/1993	83	83.00	0.65	54.18	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6747.143792
5592050	12/18/1994	83	83.00	0.65	54.18	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6747.143792
5592050	3/21/1997	83	83.00	0.65	54.18	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6747.143792
5592050	1/6/1998	83	83.00	0.65	54.18	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6747.143792
5592050	4/10/1998	83	83.00	0.65	54.18	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6747.143792
5592050	2/7/2001	83	83.00	0.65	54.18	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6747.143792
5592050	2/20/2001	83	83.00	0.65	54.18	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6747.143792
5592050	6/14/2001	83	83.00	0.65	54.18	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6747.143792
5592050	10/13/2001	83	83.00	0.65	54.18	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6747.143792
5592050	3/5/2002	83	83.00	0.65	54.18	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6747.143792
5592050	3/10/2004	83	83.00	0.65	54.18	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6747.143792
5592050	4/4/2004	83	83.00	0.65	54.18	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6747.143792
5592050	2/22/2005	83	83.00	0.65	54.18	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6747.143792
5592050	2/19/2008	83	83.00	0.65	54.18	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6747.143792
5592050	10/24/2009	83	83.00	0.65	54.18	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6747.143792
5592050	3/18/2010	83	83.00	0.65	54.18	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6747.143792
5592050	3/20/2011	83	83.00	0.65	54.18	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6747.143792

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	1/13/2014	83	83.00	0.65	54.18	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6747.143792
5592050	2/24/2014	83	83.00	0.65	54.18	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6747.143792
5592050	5/23/1990	82	82.00	0.65	53.53	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6665.852903
5592050	3/13/1991	82	82.00	0.65	53.53	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6665.852903
5592050	3/28/1993	82	82.00	0.65	53.53	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6665.852903
5592050	12/19/1993	82	82.00	0.65	53.53	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6665.852903
5592050	12/19/1995	82	82.00	0.65	53.53	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6665.852903
5592050	3/6/1996	82	82.00	0.65	53.53	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6665.852903
5592050	4/4/2002	82	82.00	0.65	53.53	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6665.852903
5592050	5/27/2004	82	82.00	0.65	53.53	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6665.852903
5592050	3/16/2008	82	82.00	0.65	53.53	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6665.852903
5592050	4/18/2008	82	82.00	0.65	53.53	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6665.852903
5592050	11/7/2009	82	82.00	0.65	53.53	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6665.852903
5592050	12/6/2009	82	82.00	0.65	53.53	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6665.852903
5592050	12/12/2009	82	82.00	0.65	53.53	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6665.852903
5592050	2/27/2010	82	82.00	0.65	53.53	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6665.852903
5592050	5/7/2011	82	82.00	0.65	53.53	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6665.852903
5592050	6/1/2011	82	82.00	0.65	53.53	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6665.852903
5592050	6/25/2011	82	82.00	0.65	53.53	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6665.852903
5592050	4/14/2013	82	82.00	0.65	53.53	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6665.852903
5592050	11/26/2014	82	82.00	0.65	53.53	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6665.852903
5592050	4/17/1991	81	81.00	0.65	52.88	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6584.562014
5592050	1/11/1993	81	81.00	0.65	52.88	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6584.562014
5592050	1/12/1993	81	81.00	0.65	52.88	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6584.562014
5592050	1/15/1993	81	81.00	0.65	52.88	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6584.562014
5592050	2/13/1993	81	81.00	0.65	52.88	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6584.562014
5592050	5/2/1993	81	81.00	0.65	52.88	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6584.562014
5592050	5/4/1993	81	81.00	0.65	52.88	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6584.562014
5592050	5/9/1999	81	81.00	0.65	52.88	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6584.562014
5592050	2/5/2001	81	81.00	0.65	52.88	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6584.562014
5592050	4/27/2009	81	81.00	0.65	52.88	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6584.562014
5592050	6/14/2009	81	81.00	0.65	52.88	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6584.562014
5592050	4/19/2012	81	81.00	0.65	52.88	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6584.562014
5592050	3/8/2013	81	81.00	0.65	52.88	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6584.562014
5592050	3/9/2013	81	81.00	0.65	52.88	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6584.562014
5592050	3/12/2013	81	81.00	0.65	52.88	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6584.562014
5592050	6/30/2013	81	81.00	0.65	52.88	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6584.562014
5592050	4/22/1990	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	12/15/1990	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	12/16/1990	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	1/4/1991	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	4/14/1991	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	3/2/1993	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	4/18/1993	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/26/1993	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	12/12/1993	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	12/20/1993	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	3/10/1994	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	6/5/1995	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	5/17/1999	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	6/23/2002	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	6/26/2002	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	2/18/2004	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	12/25/2004	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	1/21/2005	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	3/29/2006	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	5/4/2006	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	3/30/2009	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	1/19/2010	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	4/1/2010	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	12/13/2010	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	3/7/2013	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	3/31/2013	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	5/15/2015	80	80.00	0.65	52.23	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6503.271125
5592050	11/29/1992	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	12/23/1992	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	2/12/1993	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	3/13/1993	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	12/13/1993	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	2/3/1994	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	4/25/1994	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	6/15/1996	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	1/7/1998	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	5/28/1998	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	6/8/1999	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	6/29/2000	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	11/25/2000	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	12/2/2001	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	6/6/2002	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	12/25/2003	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	5/25/2004	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	1/3/2007	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	4/19/2008	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	1/1/2010	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	3/21/2011	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	12/20/2012	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	5/16/2013	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	5/18/2014	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	1/12/2015	79	79.00	0.65	51.57	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6421.980236
5592050	5/3/1993	78	78.00	0.65	50.92	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6340.689347
5592050	5/6/1993	78	78.00	0.65	50.92	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6340.689347
5592050	5/14/1993	78	78.00	0.65	50.92	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6340.689347
5592050	3/14/1995	78	78.00	0.65	50.92	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6340.689347
5592050	6/6/1995	78	78.00	0.65	50.92	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6340.689347
5592050	6/19/1996	78	78.00	0.65	50.92	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6340.689347
5592050	4/21/1998	78	78.00	0.65	50.92	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6340.689347
5592050	7/8/2000	78	78.00	0.65	50.92	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6340.689347
5592050	3/19/2001	78	78.00	0.65	50.92	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6340.689347
5592050	2/27/2004	78	78.00	0.65	50.92	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6340.689347
5592050	1/22/2007	78	78.00	0.65	50.92	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6340.689347
5592050	4/14/2007	78	78.00	0.65	50.92	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6340.689347
5592050	1/29/2010	78	78.00	0.65	50.92	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6340.689347
5592050	12/11/2010	78	78.00	0.65	50.92	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6340.689347
5592050	2/7/2012	78	78.00	0.65	50.92	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6340.689347
5592050	12/17/1990	77	77.00	0.65	50.27	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6259.398458
5592050	4/6/1993	77	77.00	0.65	50.27	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6259.398458
5592050	10/3/1993	77	77.00	0.65	50.27	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6259.398458
5592050	4/5/1996	77	77.00	0.65	50.27	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6259.398458
5592050	6/13/1997	77	77.00	0.65	50.27	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6259.398458
5592050	1/29/1998	77	77.00	0.65	50.27	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6259.398458
5592050	4/20/1998	77	77.00	0.65	50.27	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6259.398458
5592050	2/19/1999	77	77.00	0.65	50.27	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6259.398458
5592050	5/2/1999	77	77.00	0.65	50.27	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6259.398458
5592050	3/8/2002	77	77.00	0.65	50.27	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6259.398458
5592050	5/30/2004	77	77.00	0.65	50.27	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6259.398458
5592050	12/25/2006	77	77.00	0.65	50.27	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6259.398458
5592050	3/27/2007	77	77.00	0.65	50.27	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6259.398458
5592050	4/25/2009	77	77.00	0.65	50.27	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6259.398458
5592050	4/18/2011	77	77.00	0.65	50.27	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6259.398458
5592050	5/26/1990	76	76.00	0.65	49.61	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6178.107569
5592050	5/7/1993	76	76.00	0.65	49.61	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6178.107569
5592050	6/10/1994	76	76.00	0.65	49.61	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6178.107569
5592050	6/16/1994	76	76.00	0.65	49.61	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6178.107569
5592050	2/25/1997	76	76.00	0.65	49.61	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6178.107569
5592050	2/24/1998	76	76.00	0.65	49.61	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6178.107569
5592050	7/1/1998	76	76.00	0.65	49.61	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6178.107569
5592050	2/6/2001	76	76.00	0.65	49.61	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6178.107569
5592050	6/15/2001	76	76.00	0.65	49.61	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6178.107569
5592050	3/11/2004	76	76.00	0.65	49.61	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6178.107569
5592050	12/26/2004	76	76.00	0.65	49.61	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6178.107569
5592050	4/5/2006	76	76.00	0.65	49.61	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6178.107569
5592050	5/14/2008	76	76.00	0.65	49.61	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6178.107569

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	3/19/2011	76	76.00	0.65	49.61	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6178.107569
5592050	4/14/2011	76	76.00	0.65	49.61	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6178.107569
5592050	6/14/2011	76	76.00	0.65	49.61	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6178.107569
5592050	12/21/2012	76	76.00	0.65	49.61	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6178.107569
5592050	3/30/2015	76	76.00	0.65	49.61	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6178.107569
5592050	11/28/2015	76	76.00	0.65	49.61	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6178.107569
5592050	2/24/1990	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	5/25/1990	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	2/23/1993	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	3/29/1993	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	2/21/1994	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	1/27/1996	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	12/25/1997	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	3/2/1998	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	6/27/1998	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	2/7/2002	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	2/23/2002	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	4/5/2002	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	6/24/2002	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	10/20/2004	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	3/17/2008	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	1/13/2009	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	5/22/2009	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	12/7/2009	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	3/26/2010	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	4/9/2010	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	6/4/2010	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	12/4/2010	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	6/2/2011	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	4/15/2013	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	6/8/2013	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	2/3/2014	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	4/9/2014	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	3/19/2015	75	75.00	0.65	48.96	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6096.81668
5592050	2/20/1991	74	74.00	0.65	48.31	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6015.525791
5592050	3/16/1993	74	74.00	0.65	48.31	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6015.525791
5592050	4/14/1993	74	74.00	0.65	48.31	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6015.525791
5592050	12/21/1993	74	74.00	0.65	48.31	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6015.525791
5592050	4/26/1994	74	74.00	0.65	48.31	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6015.525791
5592050	6/14/2000	74	74.00	0.65	48.31	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6015.525791
5592050	11/29/2000	74	74.00	0.65	48.31	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6015.525791
5592050	12/11/2000	74	74.00	0.65	48.31	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6015.525791
5592050	4/17/2002	74	74.00	0.65	48.31	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6015.525791
5592050	11/13/2004	74	74.00	0.65	48.31	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6015.525791

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	1/1/2005	74	74.00	0.65	48.31	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6015.525791
5592050	3/28/2005	74	74.00	0.65	48.31	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6015.525791
5592050	1/9/2007	74	74.00	0.65	48.31	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6015.525791
5592050	3/4/2007	74	74.00	0.65	48.31	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6015.525791
5592050	3/19/2010	74	74.00	0.65	48.31	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6015.525791
5592050	5/20/2010	74	74.00	0.65	48.31	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6015.525791
5592050	5/15/2011	74	74.00	0.65	48.31	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6015.525791
5592050	5/9/2012	74	74.00	0.65	48.31	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6015.525791
5592050	12/10/2014	74	74.00	0.65	48.31	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6015.525791
5592050	3/25/2015	74	74.00	0.65	48.31	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6015.525791
5592050	5/24/1990	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	2/14/1993	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	4/10/1993	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	4/26/1995	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	6/16/1996	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	3/7/1997	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	4/13/1998	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	5/13/1998	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	1/30/1999	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	5/22/1999	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	11/8/2000	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	3/5/2001	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	1/2/2004	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	2/23/2005	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	3/17/2006	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	6/29/2007	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	5/31/2009	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	12/20/2009	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	12/30/2010	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	1/4/2011	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	4/15/2011	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	5/5/2014	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	10/5/2014	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	6/12/2015	73	73.00	0.65	47.66	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5934.234901
5592050	11/30/1992	72	72.00	0.65	47.00	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5852.944012
5592050	2/2/1993	72	72.00	0.65	47.00	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5852.944012
5592050	3/14/1993	72	72.00	0.65	47.00	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5852.944012
5592050	4/21/1993	72	72.00	0.65	47.00	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5852.944012
5592050	6/9/1993	72	72.00	0.65	47.00	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5852.944012
5592050	9/21/1993	72	72.00	0.65	47.00	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5852.944012
5592050	12/16/1994	72	72.00	0.65	47.00	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5852.944012
5592050	6/7/1995	72	72.00	0.65	47.00	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5852.944012
5592050	5/18/1999	72	72.00	0.65	47.00	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5852.944012
5592050	5/19/2001	72	72.00	0.65	47.00	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5852.944012

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/12/2004	72	72.00	0.65	47.00	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5852.944012
5592050	11/6/2004	72	72.00	0.65	47.00	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5852.944012
5592050	12/27/2004	72	72.00	0.65	47.00	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5852.944012
5592050	1/22/2005	72	72.00	0.65	47.00	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5852.944012
5592050	6/30/2011	72	72.00	0.65	47.00	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5852.944012
5592050	1/31/2012	72	72.00	0.65	47.00	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5852.944012
5592050	10/18/2014	72	72.00	0.65	47.00	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5852.944012
5592050	3/17/1993	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	3/30/1993	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	4/7/1993	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	4/8/1993	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	10/4/1993	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	6/10/1997	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	1/13/1998	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	11/18/2000	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	2/22/2001	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	3/20/2001	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	12/24/2001	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	6/7/2002	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	3/1/2004	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	2/24/2005	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	2/20/2009	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	2/28/2010	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	3/22/2011	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	5/8/2011	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	6/12/2011	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	12/21/2011	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	3/20/2015	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	3/11/2016	71	71.00	0.65	46.35	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5771.653123
5592050	1/5/1991	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	1/24/1991	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	2/16/1991	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	1/16/1993	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	2/3/1993	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	3/19/1993	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	5/8/1993	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	2/26/1994	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	6/26/1994	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	11/5/1994	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	1/23/1995	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	4/6/1996	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	6/17/1996	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	1/25/1997	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	3/3/1998	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/12/2000	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	12/14/2000	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	1/17/2001	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	2/21/2001	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	6/23/2001	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	11/27/2003	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	2/28/2004	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	5/31/2004	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	1/23/2005	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	8/28/2006	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	2/28/2009	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	6/24/2009	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	11/8/2009	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	1/18/2010	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	1/30/2010	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	5/21/2010	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	3/23/2011	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	6/23/2011	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	5/17/2013	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	12/30/2014	70	70.00	0.65	45.70	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5690.362234
5592050	3/26/1996	69	69.00	0.65	45.04	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5609.071345
5592050	4/26/1999	69	69.00	0.65	45.04	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5609.071345
5592050	5/10/1999	69	69.00	0.65	45.04	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5609.071345
5592050	4/13/2001	69	69.00	0.65	45.04	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5609.071345
5592050	4/6/2002	69	69.00	0.65	45.04	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5609.071345
5592050	5/19/2004	69	69.00	0.65	45.04	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5609.071345
5592050	12/28/2004	69	69.00	0.65	45.04	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5609.071345
5592050	4/19/2007	69	69.00	0.65	45.04	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5609.071345
5592050	4/20/2008	69	69.00	0.65	45.04	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5609.071345
5592050	2/21/2009	69	69.00	0.65	45.04	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5609.071345
5592050	4/26/2009	69	69.00	0.65	45.04	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5609.071345
5592050	10/29/2009	69	69.00	0.65	45.04	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5609.071345
5592050	12/21/2009	69	69.00	0.65	45.04	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5609.071345
5592050	3/1/2010	69	69.00	0.65	45.04	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5609.071345
5592050	4/2/2010	69	69.00	0.65	45.04	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5609.071345
5592050	4/20/2012	69	69.00	0.65	45.04	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5609.071345
5592050	2/14/2013	69	69.00	0.65	45.04	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5609.071345
5592050	5/4/1991	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	5/6/1991	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	12/1/1992	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	10/27/1993	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	12/22/1993	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	2/8/1997	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	3/8/1997	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	2/25/1998	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	4/11/1998	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	5/3/1999	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	11/19/2000	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	2/10/2002	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	4/20/2002	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	6/27/2002	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	1/3/2004	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	2/29/2004	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	4/5/2004	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	5/17/2004	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	1/23/2007	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	2/13/2008	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	1/2/2010	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	3/27/2010	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	5/23/2013	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	9/10/2014	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	4/14/2015	68	68.00	0.65	44.39	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5527.780456
5592050	4/14/1990	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	2/21/1991	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	3/16/1991	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	5/5/1991	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	2/4/1993	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	4/11/1993	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	7/27/1993	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	2/4/1994	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	4/7/1994	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	3/15/1995	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	6/24/1995	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	6/20/1996	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	3/22/1997	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	2/26/1998	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	5/29/1998	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	2/8/2002	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	4/18/2002	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	5/26/2004	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	12/29/2004	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	1/24/2007	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	1/30/2007	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	3/5/2007	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	3/18/2007	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	3/19/2007	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	6/13/2008	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	10/26/2008	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	5/25/2009	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	12/22/2009	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	3/20/2010	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	4/28/2010	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	6/3/2011	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	12/20/2011	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	6/9/2014	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	1/15/2016	67	67.00	0.65	43.74	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5446.489567
5592050	10/18/1990	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	3/28/1991	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	3/15/1993	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	4/22/1993	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	4/23/1993	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	7/5/1993	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	9/6/1993	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	10/28/1993	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	5/16/1994	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	11/28/1994	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	2/20/1999	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	3/6/2001	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	2/9/2002	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	2/24/2002	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	4/7/2002	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	6/8/2002	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	5/20/2003	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	1/21/2004	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	10/29/2004	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	11/20/2004	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	12/30/2004	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	12/31/2004	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	2/4/2005	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	3/30/2006	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	5/23/2009	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	3/7/2010	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	1/15/2013	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	2/2/2013	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	3/13/2013	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	4/1/2013	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	5/11/2014	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	5/19/2014	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	6/10/2014	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	12/11/2014	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	5/16/2015	66	66.00	0.65	43.09	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5365.198678
5592050	11/30/1990	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/6/1990	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	12/25/1990	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	12/24/1992	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	1/20/1993	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	4/24/1993	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	5/15/1993	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	10/11/1993	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	2/20/1994	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	3/11/1994	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	4/6/1994	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	6/17/1994	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	4/27/1995	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	7/1/1995	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	1/22/1996	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	4/7/1996	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	3/4/1998	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	4/22/1998	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	4/24/1999	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	2/23/2001	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	3/21/2001	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	6/16/2001	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	2/12/2002	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	2/25/2005	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	12/26/2006	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	3/22/2007	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	3/28/2007	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	5/27/2008	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	1/14/2009	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	6/15/2009	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	10/28/2009	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	3/2/2010	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	12/14/2010	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	6/9/2013	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	3/31/2015	65	65.00	0.65	42.43	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5283.907789
5592050	4/18/1991	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	4/21/1992	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	12/2/1992	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	2/5/1993	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	2/6/1993	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	2/24/1993	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	3/18/1993	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	5/9/1993	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	6/12/1993	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	4/8/1994	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/8/1995	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	8/2/1995	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	8/7/1995	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	6/9/1999	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	3/7/2001	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	4/19/2002	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	1/9/2004	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	3/2/2004	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	3/24/2006	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	3/31/2006	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	12/3/2006	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	1/26/2007	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	4/4/2007	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	5/16/2008	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	12/5/2010	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	2/8/2012	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	5/18/2013	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	6/16/2014	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	1/13/2016	64	64.00	0.65	41.78	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5202.6169
5592050	4/15/1990	63	63.00	0.65	41.13	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5121.326011
5592050	6/9/1990	63	63.00	0.65	41.13	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5121.326011
5592050	2/7/1993	63	63.00	0.65	41.13	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5121.326011
5592050	4/13/1993	63	63.00	0.65	41.13	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5121.326011
5592050	7/7/1993	63	63.00	0.65	41.13	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5121.326011
5592050	7/9/1998	63	63.00	0.65	41.13	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5121.326011
5592050	11/30/2000	63	63.00	0.65	41.13	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5121.326011
5592050	3/8/2001	63	63.00	0.65	41.13	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5121.326011
5592050	7/10/2003	63	63.00	0.65	41.13	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5121.326011
5592050	3/12/2004	63	63.00	0.65	41.13	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5121.326011
5592050	1/24/2005	63	63.00	0.65	41.13	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5121.326011
5592050	9/18/2008	63	63.00	0.65	41.13	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5121.326011
5592050	4/10/2010	63	63.00	0.65	41.13	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5121.326011
5592050	4/10/2014	63	63.00	0.65	41.13	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5121.326011
5592050	3/21/2015	63	63.00	0.65	41.13	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5121.326011
5592050	4/20/2015	63	63.00	0.65	41.13	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5121.326011
5592050	7/3/2015	63	63.00	0.65	41.13	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5121.326011
5592050	1/14/2016	63	63.00	0.65	41.13	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5121.326011
5592050	1/17/1993	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	2/8/1993	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	7/9/1993	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	4/9/1994	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	3/8/1996	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	6/14/1997	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	3/5/1998	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/12/1998	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	6/28/1998	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	2/5/1999	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	3/11/1999	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	5/4/1999	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	6/16/1999	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	9/25/2000	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	10/13/2000	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	11/20/2000	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	3/13/2001	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	6/9/2002	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	6/28/2002	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	9/3/2003	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	4/6/2004	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	5/28/2004	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	4/21/2008	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	11/9/2009	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	3/3/2010	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	5/6/2014	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	6/1/2015	62	62.00	0.65	40.47	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5040.035122
5592050	4/11/1990	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	4/23/1990	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	5/17/1991	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	6/21/1996	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	1/27/1998	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	5/14/1998	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	8/6/1998	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	2/6/1999	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	4/25/1999	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	5/11/1999	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	2/11/2002	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	2/3/2005	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	5/26/2006	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	5/15/2008	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	7/10/2008	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	3/21/2010	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	3/22/2010	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	5/4/2010	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	5/22/2010	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	5/9/2011	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	2/1/2012	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	3/27/2013	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	3/15/2014	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	11/27/2014	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/31/2014	61	61.00	0.65	39.82	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4958.744233
5592050	5/27/1990	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	1/6/1991	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	5/14/1991	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	2/15/1993	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	2/21/1993	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	5/11/1993	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	10/29/1993	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	12/23/1993	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	1/24/1994	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	2/5/1994	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	3/6/1994	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	3/13/1994	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	1/28/1996	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	5/19/1999	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	10/26/2001	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	2/25/2002	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	4/7/2004	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	2/26/2005	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	1/25/2007	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	6/1/2009	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	1/17/2010	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	1/31/2010	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	7/1/2011	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	5/10/2012	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	6/10/2013	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	3/10/2016	60	60.00	0.65	39.17	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4877.453344
5592050	5/10/1990	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	6/24/1990	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	2/22/1991	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	5/10/1993	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	9/13/1993	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	10/5/1993	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	6/18/1994	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	11/6/1994	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	12/19/1994	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	6/9/1995	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	8/6/1995	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	3/7/1996	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	4/8/1996	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	1/14/1998	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	1/30/1998	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	4/23/1998	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	5/30/1998	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/10/1998	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	3/22/2001	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	12/3/2001	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	2/19/2002	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	6/10/2002	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	5/28/2003	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	6/12/2003	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	11/7/2004	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	1/25/2005	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	3/29/2005	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	5/5/2006	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	5/24/2006	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	7/5/2007	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	6/14/2008	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	3/11/2009	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	1/5/2011	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	5/19/2013	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	5/20/2014	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	6/6/2014	59	59.00	0.65	38.52	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4796.162455
5592050	3/19/1992	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	12/25/1992	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	2/9/1993	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	2/11/1993	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	4/12/1993	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	6/10/1993	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	8/3/1993	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	10/12/1993	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	3/12/1994	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	3/14/1994	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	5/17/1994	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	1/12/1995	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	3/16/1995	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	6/10/1995	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	6/25/1995	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	6/22/1996	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	2/9/1997	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	5/15/1998	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	12/1/2000	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	3/9/2001	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	10/14/2001	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	12/25/2001	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	11/28/2003	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	2/28/2005	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	5/13/2006	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	1/10/2007	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	1/12/2007	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	1/31/2007	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	4/12/2007	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	2/14/2008	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	4/22/2008	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	5/17/2008	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	5/24/2009	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	1/3/2010	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	3/4/2010	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	3/6/2010	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	3/25/2010	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	4/29/2010	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	1/24/2012	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	2/25/2014	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	12/16/2014	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	4/15/2015	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	1/16/2016	58	58.00	0.65	37.86	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4714.871566
5592050	3/29/1991	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	5/13/1991	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	2/10/1993	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	5/12/1993	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	5/18/1993	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	12/24/1993	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	6/11/1997	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	3/6/1998	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	5/21/1999	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	3/11/2001	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	3/12/2001	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	6/17/2001	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	5/18/2004	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	10/24/2004	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	3/18/2006	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	3/7/2007	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	4/11/2007	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	2/27/2008	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	2/22/2009	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	11/10/2009	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	3/5/2010	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	4/11/2010	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	5/10/2011	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	6/24/2011	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	3/14/2013	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	3/15/2013	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	3/16/2013	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	3/18/2013	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	1/14/2014	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	2/4/2014	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	4/2/2014	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	10/19/2014	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	1/13/2015	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	2/28/2016	57	57.00	0.65	37.21	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4633.580676
5592050	1/7/1991	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	4/19/1991	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	2/25/1993	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	2/6/1994	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	3/15/1994	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	6/26/1995	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	3/23/1997	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	2/23/1999	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	5/20/1999	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	7/9/2000	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	10/14/2000	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	10/15/2000	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	1/22/2004	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	3/13/2004	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	3/14/2004	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	4/8/2004	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	5/20/2004	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	1/26/2005	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	1/29/2005	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	2/27/2005	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	3/6/2007	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	4/1/2007	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	7/14/2008	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	6/25/2009	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	2/20/2010	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	3/23/2010	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	6/29/2010	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	12/15/2010	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	2/9/2012	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	4/21/2012	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	7/1/2013	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	10/9/2014	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	11/30/2014	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	12/12/2014	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	1/2/2015	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	5/17/2015	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/13/2015	56	56.00	0.65	36.56	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4552.289787
5592050	5/28/1990	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	12/26/1990	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	1/25/1991	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	5/16/1993	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	2/19/1994	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	2/27/1994	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	3/5/1994	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	6/27/1994	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	11/23/1994	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	1/24/1995	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	1/29/1995	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	4/30/1995	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	6/23/1996	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	3/7/1998	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	7/2/1998	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	6/12/1999	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	12/17/2000	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	3/10/2001	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	6/2/2001	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	6/29/2002	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	5/13/2003	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	1/10/2004	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	10/30/2004	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	11/14/2004	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	1/11/2007	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	3/20/2007	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	3/29/2007	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	2/20/2008	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	1/15/2009	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	2/1/2010	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	4/30/2010	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	5/16/2011	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	6/4/2011	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	5/20/2013	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	3/22/2015	55	55.00	0.65	35.91	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4470.998898
5592050	1/8/1991	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	3/2/1991	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	1/18/1993	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	2/16/1993	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	7/28/1993	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	8/13/1993	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	3/27/1994	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	6/8/1994	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/11/1994	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	6/11/1995	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	2/26/1996	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	2/10/1997	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	3/25/1997	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	4/24/1998	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	2/21/1999	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	3/12/1999	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	8/6/2000	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	12/2/2000	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	3/23/2001	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	4/14/2001	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	6/24/2001	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	12/13/2001	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	2/13/2002	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	2/15/2002	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	3/3/2004	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	5/20/2005	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	4/23/2008	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	2/23/2009	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	2/26/2009	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	1/4/2010	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	1/6/2011	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	6/5/2011	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	7/2/2011	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	4/2/2013	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	5/7/2014	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	1/1/2015	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	1/6/2015	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	4/1/2015	54	54.00	0.65	35.25	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4389.708009
5592050	12/3/1992	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	12/4/1992	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	12/26/1992	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	10/6/1993	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	10/16/1993	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	5/18/1994	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	6/11/1994	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	6/19/1994	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	6/23/1994	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	2/28/1995	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	3/17/1995	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	7/2/1995	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	3/9/1996	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	4/9/1996	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/30/2000	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	12/26/2003	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	5/24/2004	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	11/21/2004	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	1/27/2005	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	1/30/2005	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	3/30/2005	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	12/27/2006	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	3/31/2007	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	4/20/2007	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	7/18/2007	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	2/29/2008	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	5/18/2008	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	2/24/2009	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	2/25/2009	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	11/11/2009	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	5/1/2010	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	5/5/2010	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	5/12/2010	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	12/6/2010	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	3/24/2011	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	2/15/2013	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	5/24/2013	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	4/27/2014	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	5/12/2014	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	5/10/2015	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	8/6/2015	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	2/29/2016	53	53.00	0.65	34.60	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4308.41712
5592050	2/16/1990	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	1/9/1991	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	5/19/1993	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	6/13/1993	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	9/7/1993	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	2/7/1994	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	12/20/1994	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	3/27/1996	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	6/24/1996	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	12/26/1997	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	5/16/1998	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	5/31/1998	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	3/10/1999	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	6/10/1999	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	6/11/1999	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	10/16/2000	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/21/2000	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	6/18/2001	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	2/20/2003	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	5/29/2003	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	3/16/2004	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	2/2/2005	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	5/19/2005	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	3/19/2006	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	4/1/2006	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	3/21/2007	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	6/24/2007	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	4/26/2008	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	6/2/2009	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	4/12/2010	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	5/23/2010	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	7/3/2011	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	12/15/2011	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	2/3/2013	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	4/11/2014	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	11/29/2014	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	12/22/2014	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	4/3/2015	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	4/16/2015	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	3/12/2016	52	52.00	0.65	33.95	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4227.126231
5592050	4/16/1990	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	2/23/1991	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	5/16/1991	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	7/6/1993	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	4/28/1995	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	5/2/1995	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	6/12/1995	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	8/8/1995	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	2/11/1997	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	3/24/1997	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	4/25/1998	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	7/6/1998	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	4/15/2001	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	2/16/2002	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	6/30/2002	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	1/23/2004	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	10/18/2004	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	1/28/2005	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	3/1/2005	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	5/6/2006	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	3/10/2007	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	4/26/2007	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	4/24/2008	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	4/25/2008	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	3/1/2009	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	11/12/2009	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	11/13/2009	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	3/24/2010	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	4/24/2010	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	7/4/2011	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	2/2/2012	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	2/10/2012	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	5/11/2012	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	6/11/2013	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	4/14/2014	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	5/21/2014	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	6/17/2014	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	10/20/2014	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	12/13/2014	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	2/9/2015	51	51.00	0.65	33.29	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4145.835342
5592050	4/24/1990	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	12/27/1990	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	1/10/1991	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	2/17/1991	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	2/24/1991	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	2/26/1993	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	5/17/1993	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	10/7/1993	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	12/25/1993	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	2/8/1994	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	2/18/1994	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	3/4/1994	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	3/18/1994	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	4/3/1994	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	3/20/1995	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	5/1/1995	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	7/26/1995	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	1/29/1996	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	4/10/1996	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	1/27/1997	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	5/4/1997	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	1/15/1998	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	1/31/1998	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	6/5/1998	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	2/22/1999	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	2/24/1999	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	11/22/2000	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	12/16/2000	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	1/14/2001	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	1/18/2001	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	3/15/2001	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	2/14/2002	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	2/26/2002	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	11/29/2003	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	3/15/2004	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	3/17/2004	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	11/19/2004	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	10/28/2006	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	2/1/2007	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	3/28/2009	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	1/5/2010	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	4/13/2010	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	1/7/2011	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	5/11/2011	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	1/17/2012	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	3/19/2013	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	5/25/2013	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	12/15/2014	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	3/23/2015	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	4/2/2015	50	50.00	0.65	32.64	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4064.544453
5592050	3/30/1991	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	10/13/1993	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	10/30/1993	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	5/19/1994	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	6/20/1994	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	11/27/1994	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	2/27/1995	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	3/18/1995	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	4/29/1995	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	6/27/1995	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	3/28/1996	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	4/11/1996	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	4/12/1996	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	6/12/1997	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	4/26/1998	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	2/27/1999	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	2/28/1999	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	3/9/1999	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/17/1999	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	8/3/2000	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	10/17/2000	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	3/14/2001	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	3/24/2001	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	2/19/2003	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	6/15/2003	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	1/11/2004	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	11/11/2004	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	4/14/2005	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	3/21/2006	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	6/3/2006	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	11/16/2006	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	3/14/2007	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	6/15/2008	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	3/2/2009	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	11/14/2009	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	2/2/2010	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	12/16/2010	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	6/6/2011	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	2/9/2013	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	2/18/2014	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	6/7/2014	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	7/14/2014	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	10/6/2014	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	12/14/2014	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	4/21/2015	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	11/29/2015	49	49.00	0.65	31.99	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3983.253564
5592050	4/20/1990	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	5/29/1990	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	12/1/1990	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	12/7/1990	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	4/22/1992	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	12/27/1992	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	1/19/1993	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	2/17/1993	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	10/8/1993	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	2/9/1994	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	3/16/1994	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	6/28/1994	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	1/25/1995	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	3/19/1995	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	3/24/1996	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	6/25/1996	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/1/1997	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	5/22/1998	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	8/7/1998	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	3/13/1999	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	5/23/1999	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	11/23/2000	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	11/30/2003	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	1/25/2004	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	3/25/2004	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	6/16/2004	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	3/20/2006	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	12/4/2006	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	3/13/2007	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	3/30/2007	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	4/3/2007	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	4/5/2007	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	4/27/2007	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	12/22/2007	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	1/10/2008	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	3/3/2009	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	6/3/2009	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	2/18/2012	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	4/22/2012	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	2/8/2013	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	5/14/2014	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	1/18/2015	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	4/19/2015	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	7/4/2015	48	48.00	0.65	31.34	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3901.962675
5592050	6/10/1990	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	5/7/1991	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	12/10/1992	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	2/27/1993	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	12/26/1993	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	2/10/1994	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	2/17/1994	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	5/20/1994	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	6/13/1995	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	8/11/1995	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	7/19/1996	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	2/1/1998	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	2/16/1998	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	2/25/1999	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	7/12/2000	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	12/3/2000	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/4/2000	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	5/20/2001	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	5/28/2001	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	6/19/2001	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	12/4/2001	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	2/17/2002	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	5/21/2004	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	11/15/2004	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	11/22/2004	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	1/31/2005	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	3/31/2005	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	11/17/2006	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	12/28/2006	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	3/8/2007	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	3/9/2007	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	10/8/2008	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	1/16/2009	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	6/26/2009	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	1/6/2010	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	1/16/2010	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	3/25/2011	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	4/4/2011	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	1/16/2013	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	3/17/2013	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	4/3/2013	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	1/14/2015	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	5/18/2015	47	47.00	0.65	30.68	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3820.671786
5592050	4/20/1991	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	12/7/1992	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	10/31/1993	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	2/11/1994	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	3/17/1994	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	5/25/1994	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	6/21/1994	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	9/5/1994	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	11/29/1994	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	12/21/1994	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	5/4/1995	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	5/5/1995	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	7/3/1995	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	3/29/1996	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	4/13/1996	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	3/26/1997	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	3/28/1997	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/11/2000	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	12/5/2000	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	12/26/2001	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	7/1/2002	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	12/28/2003	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	1/24/2004	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	3/18/2004	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	11/1/2004	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	11/23/2004	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	5/14/2006	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	2/21/2008	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	5/19/2008	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	5/28/2008	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	11/15/2009	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	1/7/2010	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	2/3/2010	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	4/14/2010	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	4/15/2010	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	4/23/2010	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	5/24/2010	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	5/17/2011	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	6/13/2011	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	2/3/2012	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	6/12/2013	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	7/2/2013	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	11/28/2014	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	3/24/2015	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	4/4/2015	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	4/17/2015	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	6/14/2015	46	46.00	0.65	30.03	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3739.380897
5592050	4/12/1990	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	12/28/1990	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	1/26/1991	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	2/18/1991	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	3/31/1991	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	12/5/1992	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	12/28/1992	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	5/20/1993	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	6/14/1993	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	12/27/1993	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	2/12/1994	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	2/15/1994	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	2/16/1994	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	2/28/1994	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/24/1994	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	1/30/1995	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	5/3/1995	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	6/26/1996	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	3/29/1997	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	1/16/1998	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	7/3/1998	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	7/10/2000	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	11/24/2000	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	12/15/2000	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	12/18/2000	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	5/21/2003	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	7/18/2003	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	1/12/2004	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	3/2/2005	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	4/12/2005	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	5/7/2006	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	3/12/2007	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	12/23/2007	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	4/28/2008	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	5/2/2008	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	5/20/2008	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	10/27/2008	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	6/4/2009	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	1/8/2010	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	1/15/2010	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	5/6/2010	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	6/5/2010	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	12/7/2010	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	1/8/2011	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	3/26/2011	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	3/25/2013	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	5/8/2014	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	2/8/2015	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	2/10/2015	45	45.00	0.65	29.38	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3658.090008
5592050	6/25/1990	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	2/25/1991	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	4/1/1991	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	5/18/1991	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	11/13/1993	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	2/13/1994	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	4/4/1994	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	4/5/1994	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	6/14/1995	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/20/1995	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	3/27/1997	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	5/17/1998	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	6/15/2000	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	9/27/2000	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	10/18/2000	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	12/7/2000	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	5/21/2001	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	6/25/2001	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	2/27/2002	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	6/13/2003	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	12/27/2003	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	4/9/2004	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	10/31/2004	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	11/8/2004	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	2/1/2005	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	3/23/2006	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	10/27/2006	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	12/13/2006	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	3/11/2007	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	4/6/2007	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	4/21/2007	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	7/4/2007	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	12/13/2007	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	4/27/2008	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	5/8/2008	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	6/28/2008	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	9/19/2008	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	3/4/2009	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	3/25/2009	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	1/9/2010	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	1/10/2010	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	4/16/2010	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	5/11/2010	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	5/13/2010	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	5/12/2011	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	2/17/2012	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	5/12/2012	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	6/16/2013	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	5/13/2014	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	10/21/2014	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	12/17/2014	44	44.00	0.65	28.72	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3576.799119
5592050	4/17/1990	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	4/25/1990	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/6/1990	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	10/11/1990	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	4/13/1991	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	4/21/1991	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	12/6/1992	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	2/18/1993	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	2/28/1993	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	10/14/1993	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	12/28/1993	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	2/14/1994	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	3/3/1994	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	5/21/1994	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	6/29/1994	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	1/26/1995	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	4/15/1996	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	6/27/1996	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	2/12/1997	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	7/11/1998	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	3/3/1999	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	3/14/1999	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	6/25/1999	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	9/10/2000	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	3/25/2001	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	2/18/2002	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	5/14/2003	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	5/29/2004	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	3/3/2005	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	3/4/2005	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	3/22/2006	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	11/15/2006	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	4/29/2008	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	5/9/2008	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	6/16/2008	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	11/16/2008	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	1/11/2010	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	1/12/2010	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	1/13/2010	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	1/14/2010	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	5/7/2010	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	5/18/2011	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	2/11/2012	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	2/19/2012	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	2/4/2013	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	3/16/2014	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/12/2014	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	6/24/2014	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	1/17/2015	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	4/5/2015	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	4/6/2015	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	4/18/2015	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	6/2/2015	43	43.00	0.65	28.07	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3495.50823
5592050	5/30/1990	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	2/26/1991	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	4/4/1991	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	4/22/1991	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	12/11/1992	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	5/21/1993	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	8/4/1993	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	9/8/1993	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	3/1/1994	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	3/2/1994	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	3/19/1994	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	3/20/1994	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	3/21/1994	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	3/28/1994	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	2/3/1995	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	5/7/1995	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	1/30/1996	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	3/30/1996	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	2/19/1997	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	6/15/1997	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	4/27/1998	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	6/1/1998	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	2/26/1999	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	5/24/1999	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	6/23/2000	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	12/8/2000	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	1/19/2001	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	3/26/2001	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	2/28/2002	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	7/2/2002	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	1/13/2004	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	1/26/2004	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	10/21/2004	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	11/16/2004	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	3/5/2005	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	5/16/2006	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	2/2/2007	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/2/2007	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	4/22/2007	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	1/11/2008	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	5/1/2008	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	5/3/2008	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	5/25/2008	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	3/5/2009	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	3/6/2009	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	2/4/2010	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	4/17/2010	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	5/25/2010	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	12/10/2010	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	3/27/2011	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	5/13/2011	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	6/7/2011	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	7/5/2011	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	4/23/2012	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	3/24/2013	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	4/4/2013	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	4/13/2014	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	10/10/2014	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	1/15/2015	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	4/7/2015	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	5/9/2015	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	5/30/2015	42	42.00	0.65	27.42	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3414.217341
5592050	12/8/1990	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	2/27/1991	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	3/1/1991	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	3/3/1991	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	4/2/1991	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	4/5/1991	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	5/23/1993	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	7/10/1993	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	7/29/1993	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	11/1/1993	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	11/3/1993	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	11/4/1993	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	5/22/1994	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	11/25/1994	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	12/22/1994	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	3/21/1995	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	5/6/1995	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	6/15/1995	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	7/4/1995	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	3/10/1996	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	4/14/1996	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	4/16/1996	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	6/28/1996	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	8/17/1997	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	2/2/1998	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	2/12/1998	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	5/18/1998	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	7/4/1998	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	10/19/2000	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	3/29/2001	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	4/16/2001	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	6/3/2001	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	10/16/2001	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	3/19/2004	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	3/20/2004	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	4/10/2004	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	4/11/2004	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	5/22/2004	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	3/7/2005	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	5/15/2006	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	12/5/2006	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	12/12/2006	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	12/29/2006	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	4/25/2007	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	12/12/2007	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	2/25/2008	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	4/30/2008	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	6/5/2009	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	6/30/2010	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	12/17/2010	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	2/21/2012	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	4/24/2012	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	5/13/2012	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	2/16/2013	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	3/20/2013	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	3/26/2013	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	6/13/2013	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	5/9/2014	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	5/22/2014	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	10/29/2014	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	12/1/2014	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	1/16/2015	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	1/26/2015	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/8/2015	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	4/22/2015	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	1/17/2016	41	41.00	0.65	26.77	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3332.926452
5592050	1/27/1991	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	2/28/1991	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	4/3/1991	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	4/23/1992	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	2/19/1993	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	5/31/1993	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	10/15/1993	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	11/5/1993	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	12/29/1993	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	1/1/1994	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	6/22/1994	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	1/27/1995	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	1/31/1995	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	2/2/1995	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	3/6/1995	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	3/22/1995	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	2/27/1996	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	3/12/1996	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	3/13/1996	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	1/26/1997	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	1/28/1997	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	3/30/1997	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	4/5/1997	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	5/5/1997	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	4/28/1998	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	12/6/2000	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	3/27/2001	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	3/30/2001	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	6/26/2001	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	12/5/2001	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	12/27/2001	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	3/1/2002	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	3/20/2003	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	12/11/2003	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	1/14/2004	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	3/21/2004	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	3/24/2004	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	5/12/2004	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	5/8/2006	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	5/17/2006	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	2/16/2007	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/23/2007	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	5/21/2008	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	1/17/2009	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	6/27/2009	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	2/5/2010	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	2/19/2010	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	4/18/2010	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	5/8/2010	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	5/16/2010	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	5/26/2010	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	9/13/2010	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	12/8/2010	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	12/9/2010	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	1/9/2011	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	2/22/2012	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	2/23/2012	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	4/25/2012	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	4/5/2013	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	2/5/2014	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	11/6/2014	40	40.00	0.65	26.11	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3251.635562
5592050	2/25/1990	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	5/11/1990	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	6/11/1990	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	3/6/1991	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	4/23/1991	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	5/8/1991	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	5/22/1993	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	5/24/1993	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	6/1/1993	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	12/30/1993	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	5/23/1994	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	3/14/1996	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	6/29/1996	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	6/2/1998	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	4/9/1999	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	6/18/1999	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	7/1/2000	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	3/28/2001	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	4/1/2001	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	10/27/2001	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	7/3/2002	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	12/1/2003	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	12/10/2003	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	4/12/2004	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	5/1/2004	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	10/25/2004	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	10/26/2004	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	11/17/2004	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	4/1/2005	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	4/2/2005	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	5/27/2006	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	12/14/2006	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	4/7/2007	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	5/29/2008	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	10/9/2008	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	3/8/2009	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	4/22/2010	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	5/14/2010	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	6/3/2010	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	7/27/2010	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	9/6/2010	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	4/5/2011	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	1/25/2012	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	2/20/2012	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	2/5/2013	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	2/25/2013	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	3/22/2013	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	3/23/2013	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	7/3/2013	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	6/18/2014	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	11/5/2014	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	2/27/2016	39	39.00	0.65	25.46	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3170.344673
5592050	4/13/1990	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	4/26/1990	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	4/28/1990	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	5/6/1990	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	5/31/1990	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	6/3/1990	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	7/22/1990	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	3/4/1991	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	3/5/1991	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	4/6/1991	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	4/7/1991	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	4/8/1991	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	5/19/1991	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	3/20/1992	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	12/8/1992	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	12/9/1992	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	2/20/1993	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	3/1/1993	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	11/2/1993	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	12/31/1993	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	3/22/1994	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	3/23/1994	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	3/24/1994	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	6/2/1994	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	6/30/1994	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	12/23/1994	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	2/4/1995	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	3/5/1995	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	6/16/1995	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	8/3/1995	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	3/11/1996	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	3/15/1996	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	4/19/1996	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	5/19/1998	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	3/1/1999	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	3/2/1999	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	3/6/1999	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	8/7/2000	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	10/21/2000	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	12/19/2000	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	3/31/2001	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	5/7/2003	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	1/15/2004	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	2/3/2004	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	4/13/2004	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	5/23/2004	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	6/17/2004	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	3/6/2005	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	4/15/2005	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	5/9/2006	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	5/10/2006	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	11/18/2006	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	12/30/2006	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	2/22/2008	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	9/3/2008	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	3/7/2009	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	3/12/2009	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	3/14/2009	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	6/6/2009	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	4/19/2010	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/20/2010	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	4/21/2010	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	5/27/2010	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	3/28/2011	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	5/19/2011	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	2/12/2012	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	2/16/2012	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	5/14/2012	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	3/21/2013	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	4/6/2013	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	10/28/2014	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	12/18/2014	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	5/19/2015	38	38.00	0.65	24.81	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3089.053784
5592050	4/9/1991	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	5/9/1991	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	6/15/1993	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	8/12/1993	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	1/2/1994	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	3/26/1994	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	3/29/1994	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	5/24/1994	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	5/26/1994	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	2/1/1995	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	1/31/1996	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	3/5/1996	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	4/17/1996	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	4/18/1996	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	4/20/1996	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	6/30/1996	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	11/26/1996	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	3/31/1997	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	4/6/1997	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	1/17/1998	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	2/11/1998	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	6/8/1998	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	3/20/2000	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	5/29/2000	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	7/13/2000	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	10/20/2000	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	4/7/2001	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	4/10/2001	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	2/23/2003	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	3/21/2003	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	12/5/2003	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	1/27/2004	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	3/23/2004	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	5/2/2004	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	6/1/2004	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	11/18/2004	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	3/8/2005	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	5/18/2006	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	12/6/2006	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	5/10/2008	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	5/30/2008	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	6/17/2008	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	7/28/2008	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	3/9/2009	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	3/10/2009	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	3/13/2009	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	3/15/2009	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	3/26/2009	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	6/28/2009	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	2/6/2010	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	6/6/2010	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	7/22/2010	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	12/18/2010	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	6/8/2011	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	7/6/2011	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	12/22/2011	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	3/3/2012	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	1/17/2013	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	2/17/2013	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	4/7/2013	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	6/17/2013	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	4/15/2014	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	5/10/2014	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	10/22/2014	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	12/3/2014	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	12/5/2014	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	12/19/2014	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	1/7/2015	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	1/25/2015	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	5/20/2015	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	7/5/2015	37	37.00	0.65	24.15	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3007.762895
5592050	6/1/1990	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	6/12/1990	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	6/26/1990	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	12/2/1990	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/24/1992	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	7/28/1992	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	12/12/1992	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	12/14/1992	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	9/9/1993	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	4/2/1994	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	11/12/1994	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	11/30/1994	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	6/17/1995	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	7/5/1995	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	7/27/1995	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	7/1/1996	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	5/6/1997	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	12/27/1997	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	2/5/1998	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	5/20/1998	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	5/21/1998	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	6/6/1998	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	7/5/1998	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	3/15/1999	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	10/22/2000	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	4/6/2001	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	4/8/2001	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	5/22/2001	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	5/23/2001	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	12/6/2001	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	7/4/2002	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	5/15/2003	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	1/16/2004	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	4/14/2004	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	11/9/2004	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	4/3/2005	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	1/30/2006	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	12/11/2006	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	12/15/2006	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	2/3/2007	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	12/14/2007	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	5/22/2008	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	10/28/2008	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	11/15/2008	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	11/17/2008	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	1/18/2009	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	6/8/2009	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	10/25/2009	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	5/10/2010	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	5/15/2010	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	5/28/2010	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	6/2/2010	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	6/9/2010	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	3/29/2011	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	3/31/2011	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	4/1/2011	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	11/30/2011	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	1/18/2012	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	3/2/2012	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	4/26/2012	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	6/23/2013	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	10/7/2014	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	10/30/2014	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	11/7/2014	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	1/19/2015	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	2/1/2015	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	2/7/2015	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	5/21/2015	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	12/15/2015	36	36.00	0.65	23.50	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2926.472006
5592050	4/27/1990	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	5/7/1990	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	6/2/1990	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	12/9/1990	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	1/28/1991	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	4/24/1991	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	5/10/1991	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	5/20/1991	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	4/1/1994	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	12/24/1994	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	2/5/1995	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	3/1/1995	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	6/18/1995	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	7/2/1996	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	11/25/1996	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	2/14/1997	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	2/18/1997	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	6/16/1997	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	5/25/1999	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	1/20/2001	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	4/2/2001	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	4/20/2001	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	6/27/2001	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/28/2001	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	3/13/2003	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	5/6/2003	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	12/4/2003	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	3/22/2004	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	3/11/2005	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	4/4/2005	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	1/29/2006	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	6/2/2006	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	4/8/2007	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	4/13/2007	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	4/24/2007	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	4/28/2007	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	2/23/2008	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	2/24/2008	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	5/4/2008	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	5/23/2008	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	7/15/2008	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	9/20/2008	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	3/16/2009	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	6/7/2009	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	2/7/2010	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	5/9/2010	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	12/29/2010	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	2/6/2011	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	3/30/2011	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	2/13/2012	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	3/18/2012	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	5/15/2012	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	12/22/2012	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	2/7/2013	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	2/18/2013	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	4/8/2013	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	4/10/2013	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	6/14/2013	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	6/22/2013	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	7/10/2013	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	5/23/2014	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	4/23/2015	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	4/25/2015	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	6/3/2015	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	2/26/2016	35	35.00	0.65	22.85	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2845.181117
5592050	5/5/1990	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	4/27/1991	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/13/1992	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	1/3/1994	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	3/30/1994	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	7/1/1994	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	8/14/1994	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	3/23/1995	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	3/27/1995	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	8/1/1995	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	2/13/1997	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	4/4/1997	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	5/3/1997	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	5/8/1997	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	2/3/1998	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	2/4/1998	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	2/6/1998	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	6/3/1998	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	6/4/1998	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	7/12/1998	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	3/4/1999	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	3/5/1999	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	3/17/1999	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	6/19/1999	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	12/10/2000	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	4/3/2001	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	4/17/2001	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	5/29/2001	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	12/19/2003	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	4/15/2004	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	4/16/2004	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	4/25/2004	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	11/10/2004	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	4/5/2005	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	6/1/2006	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	11/19/2006	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	12/7/2006	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	2/28/2008	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	6/9/2009	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	2/8/2010	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	2/18/2010	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	5/29/2010	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	7/1/2010	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	12/19/2010	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	1/10/2011	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	4/6/2011	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	5/20/2011	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	6/9/2011	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	2/24/2012	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	3/19/2012	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	4/6/2012	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	2/6/2013	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	2/19/2013	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	12/22/2013	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	3/17/2014	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	10/11/2014	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	12/2/2014	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	12/20/2014	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	2/2/2015	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	2/11/2015	34	34.00	0.65	22.20	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2763.890228
5592050	4/10/1990	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	4/18/1990	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	4/29/1990	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	10/19/1990	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	4/26/1991	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	5/3/1991	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	5/21/1991	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	7/30/1993	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	8/5/1993	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	3/25/1994	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	3/31/1994	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	6/3/1994	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	11/26/1994	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	12/25/1994	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	2/23/1995	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	2/1/1996	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	3/16/1996	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	7/3/1996	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	4/1/1997	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	4/2/1997	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	4/3/1997	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	3/16/1999	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	4/9/2001	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	5/24/2001	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	12/7/2001	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	1/30/2002	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	7/5/2002	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	5/8/2003	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	6/16/2003	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	12/2/2003	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/3/2003	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	12/6/2003	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	12/9/2003	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	12/14/2003	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	12/16/2003	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	12/22/2003	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	1/28/2004	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	4/17/2004	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	5/13/2004	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	7/11/2004	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	3/12/2005	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	4/6/2005	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	4/7/2005	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	6/30/2007	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	5/5/2008	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	5/24/2008	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	6/18/2008	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	3/17/2009	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	3/18/2009	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	3/19/2009	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	3/27/2009	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	6/29/2009	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	2/9/2010	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	5/30/2010	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	12/20/2010	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	12/21/2010	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	4/7/2011	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	4/8/2011	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	5/21/2011	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	2/20/2013	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	2/24/2013	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	4/9/2013	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	6/15/2013	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	6/18/2013	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	7/4/2013	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	10/23/2014	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	10/31/2014	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	11/9/2014	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	12/21/2014	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	1/20/2015	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	4/26/2015	33	33.00	0.65	21.54	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2682.599339
5592050	5/4/1990	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	6/13/1990	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	12/10/1990	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	1/29/1991	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	3/7/1991	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	4/10/1991	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	4/25/1991	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	4/28/1991	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	4/29/1991	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	5/25/1993	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	6/3/1993	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	6/16/1993	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	7/11/1993	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	8/6/1993	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	11/6/1993	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	1/4/1994	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	5/27/1994	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	7/2/1994	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	6/19/1995	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	7/6/1995	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	2/23/1996	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	4/21/1996	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	1/18/1998	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	1/22/1998	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	1/23/1998	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	1/26/1998	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	2/13/1998	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	5/31/1999	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	6/24/1999	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	6/17/2000	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	12/9/2000	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	12/20/2000	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	4/4/2001	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	4/5/2001	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	4/19/2001	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	11/29/2001	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	2/21/2003	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	3/14/2003	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	5/16/2003	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	6/20/2003	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	12/8/2003	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	2/4/2004	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	2/15/2004	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	4/21/2004	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	3/9/2005	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	3/10/2005	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	4/16/2005	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	5/19/2006	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	5/28/2006	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	12/8/2006	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	4/9/2007	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	12/24/2007	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	5/6/2008	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	5/7/2008	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	10/29/2008	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	1/19/2009	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	3/24/2009	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	2/10/2010	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	2/11/2010	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	2/17/2010	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	5/31/2010	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	6/10/2010	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	2/7/2011	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	2/13/2011	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	4/2/2011	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	6/10/2011	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	7/9/2011	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	12/16/2011	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	2/14/2012	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	3/8/2012	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	5/16/2012	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	2/21/2013	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	2/22/2013	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	2/23/2013	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	6/19/2013	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	4/16/2014	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	5/24/2014	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	6/25/2014	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	10/24/2014	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	11/1/2014	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	11/4/2014	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	11/8/2014	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	12/4/2014	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	1/21/2015	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	1/27/2015	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	2/3/2015	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	4/24/2015	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	11/30/2015	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	3/1/2016	32	32.00	0.65	20.89	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2601.30845
5592050	2/26/1990	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	5/8/1990	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/27/1990	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	3/12/1991	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	5/22/1991	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	4/25/1992	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	6/2/1993	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	11/15/1994	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	12/1/1994	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	12/26/1994	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	6/20/1995	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	2/14/1996	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	3/23/1996	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	2/15/1997	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	2/14/1998	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	6/7/1998	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	7/13/1998	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	7/23/1998	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	8/8/1998	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	4/10/1999	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	5/26/1999	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	7/2/2000	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	10/23/2000	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	6/28/2001	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	10/28/2001	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	2/15/2003	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	12/15/2003	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	4/18/2004	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	5/3/2004	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	4/17/2005	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	5/21/2005	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	5/31/2006	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	11/30/2006	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	12/9/2006	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	12/16/2006	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	2/4/2007	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	12/15/2007	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	12/16/2007	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	1/12/2008	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	6/19/2008	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	7/16/2009	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	2/12/2010	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	2/13/2010	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	2/14/2010	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	2/15/2010	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	2/16/2010	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/1/2010	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	6/7/2010	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	12/22/2010	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	5/22/2011	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	2/15/2012	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	3/12/2012	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	3/13/2012	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	3/20/2012	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	4/5/2012	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	6/24/2013	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	3/18/2014	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	5/27/2014	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	6/19/2014	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	10/12/2014	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	5/22/2015	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	7/6/2015	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	12/1/2015	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	12/22/2015	31	31.00	0.65	20.24	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2520.017561
5592050	2/27/1990	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	4/19/1990	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	1/30/1991	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	4/12/1991	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	11/2/1992	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	11/10/1992	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	5/26/1993	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	5/28/1993	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	6/17/1993	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	1/5/1994	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	7/3/1994	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	2/6/1995	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	2/24/1996	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	2/28/1996	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	3/17/1996	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	7/4/1996	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	1/29/1997	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	1/31/1997	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	4/12/1997	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	5/7/1997	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	5/9/1997	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	12/24/1997	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	1/21/1998	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	1/24/1998	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	2/7/1998	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	7/22/1998	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	1/15/1999	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	1/17/1999	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	6/20/1999	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	10/25/2000	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	10/26/2000	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	1/21/2001	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	4/18/2001	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	4/21/2001	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	12/8/2001	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	12/29/2001	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	7/6/2002	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	12/31/2002	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	3/19/2003	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	5/22/2003	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	12/7/2003	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	12/12/2003	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	2/2/2004	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	2/16/2004	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	4/22/2004	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	4/26/2004	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	3/13/2005	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	4/8/2005	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	4/18/2005	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	5/20/2006	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	11/14/2006	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	12/10/2006	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	2/13/2007	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	4/10/2007	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	5/5/2007	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	6/29/2008	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	3/20/2009	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	3/22/2009	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	3/23/2009	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	6/30/2009	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	7/15/2009	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	6/8/2010	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	12/23/2010	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	1/11/2011	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	1/15/2011	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	1/16/2011	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	1/24/2011	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	1/25/2011	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	2/5/2011	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	2/8/2011	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/3/2011	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	5/23/2011	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	7/10/2011	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	2/29/2012	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	3/1/2012	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	3/4/2012	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	3/7/2012	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	3/9/2012	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	4/27/2012	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	4/28/2012	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	1/18/2013	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	6/20/2013	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	7/11/2013	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	4/17/2014	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	5/25/2014	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	10/25/2014	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	11/10/2014	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	2/12/2015	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	3/7/2015	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	6/4/2015	30	30.00	0.65	19.58	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2438.726672
5592050	5/9/1990	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	6/4/1990	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	6/19/1990	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	12/11/1990	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	12/12/1990	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	3/8/1991	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	4/11/1991	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	4/30/1991	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	5/23/1991	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	4/26/1992	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	6/8/1992	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	5/27/1993	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	8/17/1993	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	11/7/1993	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	11/12/1993	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	1/6/1994	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	5/28/1994	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	12/2/1994	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	12/27/1994	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	12/28/1994	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	2/26/1995	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	8/12/1995	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	2/2/1996	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	7/5/1996	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/21/1996	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	2/16/1997	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	12/23/1997	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	12/28/1997	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	2/8/1998	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	2/15/1998	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	4/6/1999	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	7/14/2000	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	10/24/2000	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	12/21/2000	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	5/30/2001	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	6/29/2001	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	3/22/2003	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	5/9/2003	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	12/13/2003	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	12/18/2003	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	1/29/2004	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	4/20/2004	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	6/2/2004	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	10/23/2004	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	3/22/2005	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	4/22/2005	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	6/4/2006	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	8/27/2006	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	12/17/2006	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	4/29/2007	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	7/11/2008	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	9/21/2008	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	10/30/2008	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	1/23/2009	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	3/21/2009	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	6/11/2010	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	7/2/2010	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	1/17/2011	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	2/25/2012	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	3/5/2012	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	3/6/2012	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	3/11/2012	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	3/24/2012	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	1/29/2013	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	2/6/2014	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	7/15/2014	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	11/2/2014	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	11/11/2014	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	1/11/2015	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	1/24/2015	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	2/4/2015	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	7/7/2015	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	12/2/2015	29	29.00	0.65	18.93	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2357.435783
5592050	2/17/1990	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	6/14/1990	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	1/31/1991	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	3/9/1991	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	5/1/1991	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	5/24/1991	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	8/24/1993	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	9/10/1993	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	11/8/1993	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	1/7/1994	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	5/29/1994	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	11/14/1994	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	12/3/1994	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	3/24/1995	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	3/28/1995	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	2/15/1996	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	2/16/1996	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	2/17/1996	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	1/19/1998	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	1/25/1998	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	3/8/1999	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	3/18/1999	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	5/27/1999	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	6/16/2000	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	10/27/2000	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	5/25/2001	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	10/12/2001	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	5/17/2003	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	12/17/2003	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	2/6/2004	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	2/14/2004	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	4/19/2004	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	4/23/2004	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	10/22/2004	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	4/9/2005	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	4/10/2005	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	4/19/2005	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	5/21/2006	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	5/29/2006	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	5/30/2006	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	10/29/2006	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	11/20/2006	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	2/5/2007	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	5/4/2007	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	6/20/2008	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	11/18/2008	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	1/20/2009	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	7/24/2010	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	12/24/2010	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	12/28/2010	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	1/23/2011	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	2/9/2011	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	2/12/2011	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	5/24/2011	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	2/27/2012	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	3/10/2012	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	3/14/2012	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	3/21/2012	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	3/23/2012	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	4/7/2012	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	5/17/2012	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	7/5/2013	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	1/15/2014	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	5/26/2014	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	6/20/2014	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	10/26/2014	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	10/27/2014	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	11/3/2014	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	1/22/2015	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	2/13/2015	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	5/23/2015	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	7/9/2015	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	12/16/2015	28	28.00	0.65	18.28	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2276.144894
5592050	6/5/1990	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	3/10/1991	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	3/11/1991	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	5/25/1991	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	1/24/1992	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	3/21/1992	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	7/15/1992	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	5/29/1993	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	5/30/1993	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	7/12/1993	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/9/1993	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	11/11/1993	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	1/8/1994	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	5/30/1994	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	6/4/1994	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	7/4/1994	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	11/13/1994	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	12/7/1994	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	2/7/1995	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	2/22/1995	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	2/24/1995	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	3/2/1995	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	3/4/1995	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	3/26/1995	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	8/21/1995	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	2/13/1996	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	2/18/1996	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	2/20/1996	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	2/21/1996	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	2/22/1996	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	3/18/1996	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	7/6/1996	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	4/7/1997	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	4/11/1997	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	4/21/1997	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	6/17/1997	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	1/20/1998	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	2/9/1998	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	3/7/1999	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	6/21/1999	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	6/26/1999	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	1/22/2001	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	6/30/2001	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	10/29/2001	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	12/9/2001	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	12/30/2001	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	1/1/2003	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	12/21/2003	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	2/5/2004	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	2/7/2004	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	2/17/2004	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	5/4/2004	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	5/5/2004	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	6/11/2004	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	3/14/2005	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	3/17/2005	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	3/18/2005	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	3/19/2005	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	4/11/2005	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	4/20/2005	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	4/23/2005	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	8/8/2006	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	12/18/2006	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	4/30/2007	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	5/28/2007	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	12/17/2007	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	12/21/2007	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	1/22/2009	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	1/24/2009	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	7/1/2009	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	7/5/2009	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	7/3/2010	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	11/24/2010	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	12/25/2010	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	1/12/2011	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	1/26/2011	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	1/29/2011	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	1/30/2011	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	1/31/2011	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	2/4/2011	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	2/11/2011	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	2/26/2012	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	2/28/2012	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	3/15/2012	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	3/22/2012	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	5/18/2012	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	7/6/2013	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	2/26/2014	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	4/18/2014	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	11/12/2014	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	1/28/2015	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	1/29/2015	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	2/5/2015	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	2/14/2015	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	5/24/2015	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	5/25/2015	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	6/5/2015	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005
5592050	7/8/2015	27	27.00	0.65	17.63	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.854005

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/30/1990	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	6/15/1990	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	6/18/1990	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	6/28/1990	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	6/30/1990	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	2/1/1991	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	5/2/1991	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	5/26/1991	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	4/27/1992	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	6/7/1992	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	6/18/1993	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	8/7/1993	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	11/10/1993	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	1/9/1994	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	11/16/1994	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	11/20/1994	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	12/4/1994	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	12/29/1994	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	1/1/1995	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	3/3/1995	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	3/25/1995	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	7/7/1995	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	2/3/1996	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	2/19/1996	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	3/2/1996	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	3/20/1996	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	3/22/1996	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	7/7/1996	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	2/17/1997	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	5/10/1997	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	5/12/1997	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	1/16/1999	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	5/28/1999	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	7/3/2000	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	11/6/2000	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	12/22/2000	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	1/25/2001	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	4/22/2001	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	7/1/2001	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	7/7/2002	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	2/24/2003	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	3/29/2003	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	5/18/2003	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	12/20/2003	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	1/30/2004	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	2/13/2004	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	4/24/2004	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	7/13/2004	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	3/15/2005	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	3/16/2005	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	4/21/2005	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	5/22/2006	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	2/6/2007	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	5/1/2007	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	5/2/2007	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	5/3/2007	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	1/21/2009	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	12/26/2010	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	1/14/2011	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	1/18/2011	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	2/1/2011	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	2/10/2011	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	7/11/2011	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	12/28/2011	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	3/17/2012	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	3/25/2012	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	1/19/2013	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	6/21/2013	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	3/19/2014	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	5/28/2014	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	1/23/2015	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	1/30/2015	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	2/6/2015	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	4/27/2015	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	5/26/2015	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	6/7/2015	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	3/2/2016	26	26.00	0.65	16.97	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2113.563116
5592050	2/28/1990	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	12/13/1990	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	11/20/1991	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	7/13/1993	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	1/10/1994	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	1/15/1994	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	6/5/1994	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	12/31/1994	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	2/8/1995	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	2/21/1995	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	2/25/1995	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/28/1995	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	2/12/1996	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	2/25/1996	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	3/1/1996	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	3/19/1996	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	7/8/1996	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	12/1/1996	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	1/21/1997	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	1/30/1997	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	4/10/1997	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	4/13/1997	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	5/11/1997	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	12/29/1997	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	2/10/1998	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	7/14/1998	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	1/14/1999	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	3/21/1999	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	10/28/2000	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	1/23/2001	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	4/23/2001	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	4/24/2001	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	10/17/2001	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	12/12/2001	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	3/18/2003	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	5/19/2003	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	5/23/2003	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	6/17/2003	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	9/4/2003	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	2/1/2004	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	2/8/2004	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	2/11/2004	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	2/12/2004	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	4/27/2004	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	4/30/2004	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	3/20/2005	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	5/13/2005	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	5/23/2006	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	6/5/2006	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	12/19/2006	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	2/17/2007	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	6/22/2007	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	12/11/2007	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	12/18/2007	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	12/19/2007	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	1/8/2008	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	1/13/2008	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	6/21/2008	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	7/16/2008	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	10/10/2008	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	10/31/2008	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	11/19/2008	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	11/20/2008	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	1/25/2009	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	7/2/2009	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	12/27/2010	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	1/13/2011	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	1/19/2011	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	1/20/2011	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	1/21/2011	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	1/22/2011	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	1/27/2011	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	1/28/2011	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	2/2/2011	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	2/3/2011	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	12/23/2011	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	1/19/2012	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	3/16/2012	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	4/8/2012	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	12/23/2012	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	1/12/2013	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	6/25/2013	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	9/15/2014	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	1/8/2015	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	1/31/2015	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	2/15/2015	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	4/28/2015	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	4/29/2015	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	5/27/2015	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	7/11/2015	25	25.00	0.65	16.32	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2032.272227
5592050	5/3/1990	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	6/16/1990	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	6/29/1990	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	5/27/1991	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	3/22/1992	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	4/15/1992	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	4/29/1992	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	4/30/1992	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	6/19/1993	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/20/1993	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	8/14/1993	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	1/11/1994	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	1/14/1994	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	5/31/1994	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	6/6/1994	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	12/5/1994	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	12/8/1994	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	12/9/1994	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	12/10/1994	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	2/11/1995	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	3/29/1995	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	3/30/1995	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	12/21/1995	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	2/4/1996	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	2/11/1996	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	2/29/1996	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	3/3/1996	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	3/21/1996	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	4/8/1997	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	5/13/1997	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	7/18/1998	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	3/19/1999	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	3/20/1999	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	3/23/1999	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	5/29/1999	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	6/22/1999	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	6/27/1999	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	1/24/2001	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	5/1/2001	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	10/30/2001	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	12/10/2001	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	12/31/2001	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	7/10/2002	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	1/31/2004	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	2/9/2004	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	2/10/2004	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	4/28/2004	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	4/29/2004	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	4/26/2005	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	5/22/2005	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	7/12/2006	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	12/20/2006	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	2/7/2007	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	5/6/2007	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	9/22/2008	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	7/4/2009	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	7/6/2009	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	10/26/2009	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	7/4/2010	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	7/28/2010	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	7/12/2011	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	11/23/2011	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	12/29/2011	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	5/19/2012	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	7/7/2013	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	4/19/2014	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	4/25/2014	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	5/29/2014	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	6/21/2014	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	2/16/2015	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	4/30/2015	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	5/8/2015	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	6/6/2015	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	7/10/2015	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	12/3/2015	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	12/17/2015	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	12/21/2015	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	3/3/2016	24	24.00	0.65	15.67	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1950.981337
5592050	7/1/1990	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	5/30/1991	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	1/23/1992	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	3/30/1992	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	4/28/1992	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	6/21/1993	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	9/11/1993	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	1/12/1994	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	1/13/1994	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	1/16/1994	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	6/1/1994	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	7/5/1994	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	12/6/1994	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	12/11/1994	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	12/30/1994	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	1/2/1995	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	2/9/1995	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	2/20/1995	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	7/8/1995	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/9/1995	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	2/10/1996	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	7/9/1996	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	7/22/1996	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	11/30/1996	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	4/9/1997	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	5/14/1997	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	8/18/1997	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	12/2/1997	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	7/15/1998	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	7/16/1998	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	11/10/1998	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	3/22/1999	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	3/24/1999	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	4/1/1999	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	4/11/1999	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	5/30/1999	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	6/23/1999	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	7/4/2000	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	7/15/2000	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	10/30/2000	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	10/31/2000	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	12/23/2000	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	4/26/2001	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	7/2/2001	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	10/31/2001	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	12/11/2001	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	1/1/2002	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	7/8/2002	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	2/16/2003	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	3/23/2003	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	5/24/2003	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	8/2/2003	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	5/6/2004	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	6/3/2004	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	6/18/2004	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	3/21/2005	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	4/24/2005	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	4/25/2005	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	4/27/2005	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	5/12/2005	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	6/6/2006	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	11/21/2006	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	2/8/2007	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	2/19/2007	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	5/27/2007	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	12/20/2007	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	11/1/2008	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	11/14/2008	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	1/26/2009	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	7/3/2009	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	10/9/2009	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	10/27/2009	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	9/7/2010	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	9/14/2010	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	7/13/2011	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	3/26/2012	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	3/28/2012	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	4/9/2012	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	4/10/2012	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	1/20/2013	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	4/20/2014	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	4/21/2014	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	2/17/2015	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	7/12/2015	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	3/4/2016	23	23.00	0.65	15.01	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1869.690448
5592050	5/1/1990	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	6/17/1990	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	11/27/1990	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	5/31/1991	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	3/31/1992	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	8/18/1993	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	1/17/1994	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	6/7/1994	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	11/17/1994	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	2/16/1995	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	3/31/1995	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	4/1/1995	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	2/5/1996	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	2/9/1996	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	4/22/1997	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	4/4/1999	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	9/28/2000	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	10/29/2000	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	11/1/2000	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	11/2/2000	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	12/27/2000	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	12/28/2000	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	1/26/2001	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	4/25/2001	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	4/27/2001	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	7/12/2002	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	7/13/2002	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	2/22/2003	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	3/15/2003	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	5/25/2003	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	5/11/2004	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	6/12/2004	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	6/7/2006	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	2/9/2007	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	12/25/2007	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	6/22/2008	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	11/2/2008	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	12/1/2008	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	1/27/2009	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	7/23/2010	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	3/27/2012	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	3/29/2012	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	3/30/2012	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	3/31/2012	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	4/11/2012	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	5/20/2012	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	11/13/2014	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	11/23/2014	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	1/9/2015	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	1/10/2015	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	2/18/2015	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	2/19/2015	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	5/1/2015	22	22.00	0.65	14.36	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1788.399559
5592050	3/1/1990	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	10/12/1990	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	12/14/1990	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	5/28/1991	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	5/29/1991	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	5/1/1992	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	7/20/1992	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	8/8/1993	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	1/18/1994	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	7/20/1994	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	12/12/1994	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	2/10/1995	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	2/12/1995	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	2/19/1995	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	4/2/1995	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	4/12/1995	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	7/22/1995	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	2/8/1996	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	7/10/1996	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	4/14/1997	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	4/19/1997	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	6/18/1997	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	12/30/1997	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	7/17/1998	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	7/19/1998	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	3/25/1999	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	4/2/1999	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	4/3/1999	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	5/30/2000	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	8/24/2000	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	11/3/2000	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	12/24/2000	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	12/26/2000	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	12/29/2000	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	4/28/2001	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	7/3/2001	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	11/1/2001	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	11/24/2001	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	11/25/2001	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	11/28/2001	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	1/2/2002	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	1/13/2002	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	1/14/2002	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	7/9/2002	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	7/11/2002	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	3/30/2003	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	6/21/2003	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	4/30/2005	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	5/14/2005	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	5/23/2005	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	1/31/2006	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	6/8/2006	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	8/10/2006	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	10/30/2006	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	11/22/2006	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	2/10/2007	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	2/12/2007	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	2/18/2007	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	6/23/2008	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	7/3/2008	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	9/6/2008	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	11/3/2008	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	11/4/2008	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	11/5/2008	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	11/6/2008	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	11/7/2008	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	11/21/2008	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	11/24/2008	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	11/25/2008	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	1/28/2009	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	7/9/2009	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	10/14/2009	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	11/22/2011	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	12/27/2011	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	12/30/2011	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	4/1/2012	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	4/2/2012	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	4/13/2012	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	9/6/2012	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	1/28/2013	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	7/8/2013	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	7/12/2013	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	2/27/2014	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	3/20/2014	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	4/22/2014	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	6/22/2014	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	9/16/2014	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	11/14/2014	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	2/20/2015	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	2/21/2015	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	5/2/2015	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	5/28/2015	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	11/27/2015	21	21.00	0.65	13.71	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1707.10867
5592050	3/2/1990	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	5/2/1990	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	10/20/1990	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	3/23/1992	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	4/1/1992	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	7/31/1992	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	6/22/1993	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	1/19/1994	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	1/23/1994	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	7/6/1994	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	7/19/1994	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	12/13/1994	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	2/17/1995	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	2/18/1995	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	4/3/1995	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	7/10/1995	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	8/13/1995	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	2/6/1996	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	2/7/1996	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	3/4/1996	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	11/7/1996	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	4/15/1997	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	4/16/1997	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	4/20/1997	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	5/15/1997	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	9/10/1997	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	8/9/1998	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	3/28/1999	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	3/29/1999	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	3/31/1999	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	4/7/1999	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	6/28/1999	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	12/25/2000	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	12/30/2000	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	1/4/2001	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	1/5/2001	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	5/2/2001	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	7/4/2001	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	10/15/2001	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	10/18/2001	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	11/2/2001	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	1/3/2002	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	1/11/2002	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	1/12/2002	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	12/19/2002	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	12/30/2002	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	2/25/2003	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	3/17/2003	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	5/26/2003	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	6/18/2003	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	4/28/2005	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	4/29/2005	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/11/2006	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	11/7/2006	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	11/11/2006	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	11/13/2006	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	2/11/2007	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	5/7/2007	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	7/1/2007	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	1/14/2008	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	6/30/2008	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	9/23/2008	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	11/8/2008	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	1/29/2009	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	7/7/2009	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	7/10/2009	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	7/17/2009	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	7/5/2010	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	12/17/2011	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	12/24/2011	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	1/20/2012	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	4/3/2012	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	4/12/2012	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	5/21/2012	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	5/22/2012	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	12/24/2012	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	1/21/2013	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	7/9/2013	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	7/23/2013	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	2/7/2014	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	5/30/2014	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	7/16/2014	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	2/22/2015	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	2/23/2015	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	2/24/2015	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	2/25/2015	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	2/26/2015	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	5/3/2015	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	5/4/2015	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	5/29/2015	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	7/13/2015	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	12/14/2015	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	3/5/2016	20	20.00	0.65	13.06	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1625.817781
5592050	2/18/1990	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	3/3/1990	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	7/2/1990	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	5/2/1992	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	6/9/1992	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	7/29/1992	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	1/20/1994	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	7/8/1994	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	1/3/1995	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	2/13/1995	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	4/4/1995	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	4/7/1995	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	4/8/1995	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	7/11/1996	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	4/18/1997	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	5/18/1997	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	5/19/1997	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	5/26/1997	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	1/5/1998	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	3/26/1999	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	3/27/1999	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	4/8/1999	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	4/12/1999	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	4/14/1999	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	1/6/2001	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	4/29/2001	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	11/3/2001	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	1/4/2002	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	1/10/2002	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	1/15/2002	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	1/24/2002	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	3/24/2003	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	5/27/2003	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	5/30/2003	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	5/7/2004	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	6/4/2004	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	5/1/2005	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	6/9/2006	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	6/10/2006	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	6/12/2006	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	11/23/2006	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	11/24/2006	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	11/25/2006	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	5/8/2007	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	5/9/2007	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	6/24/2008	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	7/17/2008	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/11/2008	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	11/9/2008	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	11/13/2008	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	11/22/2008	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	11/23/2008	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	11/26/2008	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	11/30/2008	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	12/2/2008	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	12/10/2008	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	1/30/2009	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	7/8/2009	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	7/14/2011	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	4/4/2012	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	5/23/2012	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	1/22/2013	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	3/21/2014	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	9/12/2014	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	2/27/2015	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	3/6/2015	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	5/5/2015	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	12/4/2015	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	12/18/2015	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	3/7/2016	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	3/8/2016	19	19.00	0.65	12.40	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1544.526892
5592050	4/3/1990	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	7/23/1990	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	6/1/1991	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	11/21/1991	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	3/18/1992	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	5/5/1992	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	5/13/1992	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	8/9/1993	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	1/21/1994	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	11/7/1994	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	11/18/1994	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	12/14/1994	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	12/15/1994	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	2/15/1995	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	4/6/1995	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	4/9/1995	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	7/23/1995	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	8/22/1995	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	7/15/1996	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	4/17/1997	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/23/1997	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	4/28/1997	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	12/31/1997	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	3/30/1999	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	4/5/1999	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	4/13/1999	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	6/18/2000	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	7/16/2000	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	11/4/2000	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	12/31/2000	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	1/3/2001	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	1/7/2001	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	1/27/2001	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	4/30/2001	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	5/3/2001	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	5/7/2001	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	5/8/2001	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	7/5/2001	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	1/5/2002	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	1/9/2002	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	1/19/2002	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	1/20/2002	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	1/21/2002	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	1/23/2002	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	1/29/2002	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	3/5/2003	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	3/28/2003	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	6/19/2003	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	7/11/2003	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	8/3/2003	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	6/5/2004	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	6/6/2004	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	6/13/2004	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	5/15/2005	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	5/24/2005	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	12/29/2005	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	11/26/2006	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	11/27/2006	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	5/10/2007	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	12/26/2007	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	6/27/2008	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	7/4/2008	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	7/29/2008	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	9/24/2008	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/12/2008	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	11/27/2008	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	11/28/2008	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	1/31/2009	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	7/11/2009	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	7/12/2009	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	7/6/2010	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	12/25/2011	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	12/31/2011	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	5/24/2012	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	1/16/2014	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	3/28/2014	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	4/23/2014	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	4/26/2014	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	5/31/2014	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	6/23/2014	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	6/26/2014	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	11/22/2014	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	2/28/2015	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	3/1/2015	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	3/2/2015	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	3/3/2015	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	5/6/2015	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	3/6/2016	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	3/9/2016	18	18.00	0.65	11.75	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1463.236003
5592050	3/4/1990	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	4/2/1990	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	7/3/1990	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	6/2/1991	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	3/24/1992	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	4/2/1992	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	7/30/1992	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	11/3/1992	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	6/23/1993	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	8/10/1993	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	8/15/1993	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	1/22/1994	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	7/7/1994	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	2/14/1995	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	4/11/1995	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	7/11/1995	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	11/11/1995	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	7/12/1996	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	7/13/1996	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/16/1996	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	7/23/1996	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	4/24/1997	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	5/16/1997	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	5/17/1997	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	5/20/1997	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	5/27/1997	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	6/3/1997	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	6/4/1997	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	6/19/1997	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	12/12/1997	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	6/29/1999	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	9/24/2000	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	11/5/2000	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	1/1/2001	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	1/2/2001	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	1/13/2001	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	10/19/2001	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	11/4/2001	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	11/26/2001	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	1/6/2002	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	1/7/2002	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	1/8/2002	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	1/16/2002	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	1/17/2002	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	1/18/2002	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	1/22/2002	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	1/25/2002	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	2/17/2003	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	3/12/2003	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	4/5/2003	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	6/22/2003	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	6/7/2004	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	5/2/2005	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	5/3/2005	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	6/13/2006	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	6/22/2006	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	7/21/2006	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	11/8/2006	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	11/10/2006	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	11/28/2006	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	11/29/2006	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	5/11/2007	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	5/29/2007	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/25/2007	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	12/27/2007	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	12/29/2007	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	1/15/2008	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	6/25/2008	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	6/26/2008	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	11/10/2008	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	11/29/2008	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	12/7/2008	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	12/11/2008	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	2/1/2009	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	2/2/2009	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	7/29/2010	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	1/21/2012	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	11/13/2012	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	1/23/2013	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	7/13/2013	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	3/11/2014	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	3/22/2014	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	4/24/2014	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	6/3/2014	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	8/8/2014	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	9/17/2014	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	3/4/2015	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	3/5/2015	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	5/7/2015	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	7/14/2015	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	12/5/2015	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	12/19/2015	17	17.00	0.65	11.10	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1381.945114
5592050	3/5/1990	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	4/1/1990	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	8/13/1990	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	6/3/1991	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	3/25/1992	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	3/26/1992	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	4/3/1992	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	5/3/1992	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	5/12/1992	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	6/24/1993	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	8/11/1993	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	1/4/1995	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	1/11/1995	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	12/22/1995	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	7/14/1996	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/2/1996	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	4/29/1997	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	12/11/1997	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	1/1/1998	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	7/20/1998	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	8/10/1998	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	1/8/2001	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	1/12/2001	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	1/28/2001	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	5/4/2001	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	5/6/2001	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	11/5/2001	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	11/6/2001	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	11/7/2001	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	11/8/2001	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	11/27/2001	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	1/26/2002	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	1/27/2002	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	1/28/2002	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	7/14/2002	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	3/16/2003	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	3/31/2003	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	5/8/2004	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	6/22/2004	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	5/4/2005	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	5/5/2005	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	5/16/2005	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	5/25/2005	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	7/5/2005	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	12/28/2005	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	2/1/2006	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	6/18/2006	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	6/23/2006	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	7/13/2006	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	5/12/2007	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	5/31/2007	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	12/28/2007	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	1/16/2008	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	7/1/2008	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	7/18/2008	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	9/25/2008	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	10/12/2008	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	10/16/2008	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	11/11/2008	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/3/2008	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	12/4/2008	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	12/9/2008	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	12/12/2008	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	2/3/2009	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	2/4/2009	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	7/13/2009	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	7/18/2009	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	8/4/2009	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	7/7/2010	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	7/8/2010	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	7/9/2010	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	9/8/2010	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	9/15/2010	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	7/15/2011	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	12/18/2011	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	12/26/2011	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	1/1/2012	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	5/25/2012	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	12/25/2012	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	1/24/2013	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	1/25/2013	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	1/27/2013	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	2/28/2014	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	3/29/2014	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	11/15/2014	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	12/6/2015	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	12/7/2015	16	16.00	0.65	10.45	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1300.654225
5592050	2/19/1990	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	3/9/1990	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	3/11/1990	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	3/12/1990	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	3/15/1990	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	3/30/1990	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	3/31/1990	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	4/4/1990	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	7/4/1990	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	10/21/1990	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	8/7/1991	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	3/29/1992	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	5/4/1992	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	5/6/1992	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	6/25/1993	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	6/30/1993	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/4/1994	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	11/19/1994	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	4/10/1995	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	4/16/1995	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	7/12/1995	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	7/29/1995	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	7/17/1996	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	4/25/1997	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	4/27/1997	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	4/30/1997	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	5/25/1997	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	5/31/1997	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	11/30/1997	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	1/2/1998	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	8/4/1998	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	1/13/1999	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	6/30/1999	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	4/20/2000	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	1/9/2001	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	1/11/2001	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	5/5/2001	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	5/9/2001	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	11/9/2001	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	11/10/2001	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	3/4/2003	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	3/25/2003	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	3/27/2003	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	5/31/2003	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	5/9/2004	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	6/8/2004	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	6/19/2004	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	6/21/2004	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	5/6/2005	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	5/7/2005	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	5/8/2005	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	5/9/2005	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	5/10/2005	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	5/11/2005	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	5/17/2005	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	5/18/2005	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	5/26/2005	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	5/27/2005	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	6/14/2006	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	6/15/2006	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/17/2006	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	6/19/2006	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	8/20/2006	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	11/9/2006	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	5/19/2007	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	6/1/2007	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	7/19/2007	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	12/30/2007	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	12/31/2007	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	1/17/2008	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	7/2/2008	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	7/5/2008	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	10/17/2008	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	12/5/2008	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	12/6/2008	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	12/13/2008	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	12/14/2008	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	12/15/2008	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	2/5/2009	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	7/14/2009	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	12/1/2011	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	12/19/2011	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	1/2/2012	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	1/26/2013	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	7/14/2013	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	2/8/2014	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	3/10/2014	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	3/27/2014	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	3/30/2014	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	3/31/2014	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	4/1/2014	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	6/1/2014	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	6/2/2014	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	6/27/2014	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	7/17/2014	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	12/8/2015	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	12/9/2015	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	12/20/2015	15	15.00	0.65	9.79	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1219.363336
5592050	3/6/1990	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	3/10/1990	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	3/13/1990	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	3/14/1990	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	10/13/1990	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	6/4/1991	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/12/1991	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	11/30/1991	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	2/15/1992	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	3/27/1992	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	4/4/1992	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	4/5/1992	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	4/11/1992	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	5/9/1992	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	8/1/1992	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	6/26/1993	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	8/16/1993	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	8/19/1993	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	7/9/1994	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	4/5/1995	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	8/14/1995	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	5/1/1997	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	5/2/1997	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	5/28/1997	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	5/30/1997	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	6/2/1997	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	6/5/1997	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	6/6/1997	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	6/20/1997	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	1/3/1998	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	7/21/1998	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	7/24/1998	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	7/1/1999	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	5/31/2000	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	7/17/2000	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	8/2/2000	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	9/11/2000	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	1/10/2001	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	5/10/2001	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	5/11/2001	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	7/6/2001	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	10/20/2001	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	10/23/2001	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	11/11/2001	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	11/12/2001	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	11/13/2001	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	11/14/2001	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	11/15/2001	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	11/16/2001	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	11/19/2001	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/23/2001	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	2/18/2003	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	2/26/2003	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	3/2/2003	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	3/6/2003	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	3/26/2003	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	4/6/2003	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	7/19/2003	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	9/5/2003	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	5/10/2004	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	6/9/2004	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	6/10/2004	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	6/14/2004	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	7/14/2004	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	5/28/2005	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	6/16/2006	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	10/31/2006	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	11/6/2006	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	11/12/2006	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	7/2/2007	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	8/19/2007	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	1/1/2008	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	7/19/2008	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	9/26/2008	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	10/13/2008	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	10/14/2008	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	10/15/2008	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	10/18/2008	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	10/19/2008	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	7/19/2009	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	7/25/2009	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	8/5/2009	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	10/15/2009	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	7/10/2010	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	7/30/2010	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	9/16/2010	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	5/26/2012	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	5/29/2012	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	6/1/2012	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	12/21/2013	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	3/9/2014	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	3/23/2014	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	6/28/2014	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	11/16/2014	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/15/2015	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	12/10/2015	14	14.00	0.65	9.14	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1138.072447
5592050	3/8/1990	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	3/16/1990	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	3/29/1990	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	4/5/1990	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	7/5/1990	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	1/25/1992	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	4/10/1992	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	4/12/1992	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	5/7/1992	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	5/8/1992	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	5/10/1992	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	5/14/1992	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	6/10/1992	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	6/29/1993	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	1/5/1995	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	4/14/1995	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	7/18/1996	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	7/24/1996	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	4/26/1997	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	5/21/1997	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	5/29/1997	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	1/4/1998	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	8/11/1998	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	7/2/1999	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	8/18/2000	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	8/25/2000	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	9/23/2000	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	5/12/2001	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	9/9/2001	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	11/17/2001	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	11/18/2001	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	11/20/2001	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	11/21/2001	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	11/22/2001	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	7/15/2002	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	1/2/2003	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	6/3/2003	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	6/7/2003	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	6/23/2003	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	6/15/2004	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	5/29/2005	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	5/30/2005	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	5/31/2005	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	6/3/2005	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	6/4/2005	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	2/2/2006	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	6/20/2006	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	8/11/2006	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	8/19/2006	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	5/13/2007	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	5/16/2007	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	5/30/2007	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	7/6/2007	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	7/6/2008	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	8/2/2008	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	9/27/2008	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	9/28/2008	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	10/23/2008	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	12/8/2008	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	12/16/2008	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	12/17/2008	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	12/18/2008	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	7/11/2010	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	7/13/2010	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	7/31/2010	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	9/9/2010	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	7/16/2011	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	1/3/2012	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	1/22/2012	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	5/27/2012	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	5/28/2012	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	6/2/2012	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	7/15/2013	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	3/1/2014	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	3/24/2014	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	3/25/2014	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	3/26/2014	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	7/16/2015	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	11/18/2015	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	12/11/2015	13	13.00	0.65	8.49	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1056.781558
5592050	2/20/1990	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	3/7/1990	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	10/22/1990	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	6/5/1991	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	2/16/1992	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	3/28/1992	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/6/1992	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	4/7/1992	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	4/8/1992	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	4/9/1992	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	5/15/1992	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	11/4/1992	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	6/27/1993	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	6/28/1993	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	8/25/1993	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	1/6/1995	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	4/13/1995	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	4/15/1995	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	7/13/1995	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	12/23/1995	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	6/1/1997	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	6/21/1997	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	12/3/1997	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	11/11/1998	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	1/2/1999	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	7/3/1999	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	4/21/2000	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	6/19/2000	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	7/18/2000	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	7/19/2000	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	9/29/2000	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	5/13/2001	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	5/14/2001	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	5/15/2001	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	5/16/2001	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	7/7/2001	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	8/3/2001	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	10/21/2001	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	2/27/2003	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	3/1/2003	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	3/3/2003	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	4/1/2003	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	6/1/2003	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	6/4/2003	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	10/14/2003	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	6/20/2004	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	6/1/2005	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	6/2/2005	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	2/3/2006	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	6/21/2006	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/24/2006	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	6/25/2006	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	6/26/2006	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	8/21/2006	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	5/14/2007	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	5/15/2007	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	5/17/2007	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	6/2/2007	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	6/3/2007	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	12/10/2007	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	1/6/2008	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	1/18/2008	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	7/7/2008	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	7/20/2008	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	7/30/2008	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	9/7/2008	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	9/29/2008	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	9/30/2008	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	10/20/2008	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	7/20/2009	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	7/26/2009	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	7/12/2010	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	9/10/2010	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	9/17/2010	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	12/4/2011	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	12/5/2011	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	1/4/2012	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	5/30/2012	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	5/31/2012	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	6/3/2012	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	12/26/2012	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	7/16/2013	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	1/17/2014	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	2/9/2014	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	3/2/2014	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	6/29/2014	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	7/1/2014	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	11/17/2014	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	7/17/2015	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	12/12/2015	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	12/13/2015	12	12.00	0.65	7.83	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	975.4906687
5592050	3/25/1990	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	4/6/1990	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	4/7/1990	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/8/1990	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	7/6/1990	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	6/6/1991	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	1/26/1992	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	2/18/1992	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	5/11/1992	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	5/16/1992	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	8/20/1993	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	8/23/1993	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	1/7/1995	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	11/27/1996	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	5/22/1997	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	5/24/1997	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	12/13/1997	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	7/9/1999	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	2/18/2000	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	6/1/2000	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	7/20/2000	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	8/8/2000	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	9/22/2000	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	5/17/2001	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	7/8/2001	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	10/22/2001	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	7/16/2002	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	3/7/2003	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	4/4/2003	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	4/7/2003	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	6/2/2003	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	6/5/2003	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	6/8/2003	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	6/24/2003	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	6/26/2003	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	6/23/2004	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	6/5/2005	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	6/14/2005	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	6/27/2006	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	5/18/2007	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	6/4/2007	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	7/3/2007	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	7/17/2007	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	8/17/2007	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	8/18/2007	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	1/2/2008	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	10/1/2008	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/2/2008	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	10/7/2008	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	10/21/2008	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	7/21/2009	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	7/22/2009	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	10/10/2009	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	10/16/2009	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	7/14/2010	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	8/1/2010	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	11/23/2010	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	12/2/2011	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	12/6/2011	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	1/5/2012	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	12/27/2012	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	7/17/2013	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	3/3/2014	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	3/4/2014	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	3/5/2014	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	3/6/2014	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	3/7/2014	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	3/8/2014	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	6/30/2014	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	7/18/2014	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	9/18/2014	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	7/18/2015	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	7/19/2015	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	7/20/2015	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	8/7/2015	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	11/17/2015	11	11.00	0.65	7.18	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	894.1997797
5592050	3/17/1990	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	3/26/1990	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	10/8/1990	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	1/9/1992	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	2/17/1992	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	4/13/1992	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	4/14/1992	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	11/1/1992	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	1/8/1995	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	7/24/1995	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	7/30/1995	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	8/15/1995	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	1/16/1996	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	12/3/1996	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	5/23/1997	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/22/1997	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	7/1/1997	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	1/3/1999	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	1/12/1999	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	7/4/1999	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	8/26/2000	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	7/9/2001	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	7/24/2001	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	12/18/2002	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	2/28/2003	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	3/11/2003	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	4/2/2003	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	6/6/2003	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	6/27/2003	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	9/6/2003	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	10/10/2003	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	7/15/2004	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	6/28/2006	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	11/1/2006	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	11/5/2006	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	1/5/2008	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	1/7/2008	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	7/21/2008	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	7/22/2008	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	8/1/2008	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	10/22/2008	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	9/18/2010	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	9/19/2010	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	9/23/2010	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	9/24/2010	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	7/17/2011	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	1/6/2012	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	11/12/2012	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	7/18/2013	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	7/24/2013	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	8/1/2014	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	9/13/2014	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	11/18/2014	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	7/21/2015	10	10.00	0.65	6.53	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	812.9088906
5592050	4/9/1990	9.9	9.90	0.65	6.46	5628	58.7842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	804.7798017
5592050	10/14/1990	9.9	9.90	0.65	6.46	5628	58.7842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	804.7798017
5592050	12/3/1991	9.9	9.90	0.65	6.46	5628	58.7842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	804.7798017
5592050	2/19/1992	9.9	9.90	0.65	6.46	5628	58.7842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	804.7798017
5592050	7/10/1994	9.9	9.90	0.65	6.46	5628	58.7842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	804.7798017

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	5/21/2007	9.9	9.90	0.65	6.46	5628	58.7842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	804.7798017
5592050	7/23/2009	9.9	9.90	0.65	6.46	5628	58.7842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	804.7798017
5592050	10/8/2009	9.9	9.90	0.65	6.46	5628	58.7842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	804.7798017
5592050	2/21/1990	9.8	9.80	0.65	6.40	5636	58.8678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	796.6507128
5592050	6/11/1992	9.8	9.80	0.65	6.40	5636	58.8678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	796.6507128
5592050	7/25/1998	9.8	9.80	0.65	6.40	5636	58.8678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	796.6507128
5592050	5/20/2007	9.8	9.80	0.65	6.40	5636	58.8678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	796.6507128
5592050	7/25/2007	9.8	9.80	0.65	6.40	5636	58.8678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	796.6507128
5592050	7/26/2007	9.8	9.80	0.65	6.40	5636	58.8678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	796.6507128
5592050	7/15/2010	9.8	9.80	0.65	6.40	5636	58.8678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	796.6507128
5592050	11/27/2011	9.8	9.80	0.65	6.40	5636	58.8678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	796.6507128
5592050	12/7/2011	9.8	9.80	0.65	6.40	5636	58.8678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	796.6507128
5592050	7/7/1990	9.7	9.70	0.65	6.33	5645	58.9618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	788.5216239
5592050	6/7/1991	9.7	9.70	0.65	6.33	5645	58.9618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	788.5216239
5592050	12/24/1991	9.7	9.70	0.65	6.33	5645	58.9618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	788.5216239
5592050	7/14/1995	9.7	9.70	0.65	6.33	5645	58.9618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	788.5216239
5592050	7/31/2008	9.7	9.70	0.65	6.33	5645	58.9618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	788.5216239
5592050	8/2/2010	9.7	9.70	0.65	6.33	5645	58.9618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	788.5216239
5592050	9/20/2010	9.7	9.70	0.65	6.33	5645	58.9618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	788.5216239
5592050	1/7/2012	9.7	9.70	0.65	6.33	5645	58.9618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	788.5216239
5592050	7/19/2013	9.7	9.70	0.65	6.33	5645	58.9618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	788.5216239
5592050	3/24/1990	9.6	9.60	0.65	6.27	5654	59.0558%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	780.392535
5592050	6/8/1991	9.6	9.60	0.65	6.27	5654	59.0558%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	780.392535
5592050	1/28/1992	9.6	9.60	0.65	6.27	5654	59.0558%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	780.392535
5592050	5/17/1992	9.6	9.60	0.65	6.27	5654	59.0558%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	780.392535
5592050	8/23/1995	9.6	9.60	0.65	6.27	5654	59.0558%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	780.392535
5592050	12/24/1996	9.6	9.60	0.65	6.27	5654	59.0558%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	780.392535
5592050	10/3/2008	9.6	9.60	0.65	6.27	5654	59.0558%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	780.392535
5592050	3/27/1990	9.5	9.50	0.65	6.20	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	772.2634461
5592050	12/4/1991	9.5	9.50	0.65	6.20	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	772.2634461
5592050	1/27/1992	9.5	9.50	0.65	6.20	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	772.2634461
5592050	7/25/1996	9.5	9.50	0.65	6.20	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	772.2634461
5592050	3/21/2000	9.5	9.50	0.65	6.20	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	772.2634461
5592050	7/17/2002	9.5	9.50	0.65	6.20	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	772.2634461
5592050	4/8/2003	9.5	9.50	0.65	6.20	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	772.2634461
5592050	6/11/2003	9.5	9.50	0.65	6.20	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	772.2634461
5592050	6/6/2005	9.5	9.50	0.65	6.20	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	772.2634461
5592050	2/4/2006	9.5	9.50	0.65	6.20	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	772.2634461
5592050	2/17/2006	9.5	9.50	0.65	6.20	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	772.2634461
5592050	8/12/2006	9.5	9.50	0.65	6.20	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	772.2634461
5592050	6/5/2007	9.5	9.50	0.65	6.20	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	772.2634461
5592050	7/27/2007	9.5	9.50	0.65	6.20	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	772.2634461
5592050	1/3/2008	9.5	9.50	0.65	6.20	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	772.2634461
5592050	1/19/2008	9.5	9.50	0.65	6.20	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	772.2634461

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/2/1992	9.4	9.40	0.65	6.14	5677	59.2960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	764.1343572
5592050	8/21/1993	9.4	9.40	0.65	6.14	5677	59.2960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	764.1343572
5592050	6/25/2003	9.4	9.40	0.65	6.14	5677	59.2960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	764.1343572
5592050	7/20/2007	9.4	9.40	0.65	6.14	5677	59.2960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	764.1343572
5592050	8/16/2007	9.4	9.40	0.65	6.14	5677	59.2960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	764.1343572
5592050	12/3/2011	9.4	9.40	0.65	6.14	5677	59.2960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	764.1343572
5592050	6/4/2012	9.4	9.40	0.65	6.14	5677	59.2960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	764.1343572
5592050	11/19/2014	9.4	9.40	0.65	6.14	5677	59.2960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	764.1343572
5592050	5/18/1992	9.3	9.30	0.65	6.07	5685	59.3796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	756.0052683
5592050	5/26/2007	9.3	9.30	0.65	6.07	5685	59.3796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	756.0052683
5592050	12/28/2012	9.3	9.30	0.65	6.07	5685	59.3796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	756.0052683
5592050	7/20/2013	9.3	9.30	0.65	6.07	5685	59.3796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	756.0052683
5592050	11/21/2014	9.3	9.30	0.65	6.07	5685	59.3796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	756.0052683
5592050	11/22/2015	9.3	9.30	0.65	6.07	5685	59.3796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	756.0052683
5592050	3/18/1990	9.2	9.20	0.65	6.01	5691	59.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	747.8761794
5592050	10/23/1990	9.2	9.20	0.65	6.01	5691	59.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	747.8761794
5592050	1/31/1992	9.2	9.20	0.65	6.01	5691	59.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	747.8761794
5592050	7/21/2000	9.2	9.20	0.65	6.01	5691	59.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	747.8761794
5592050	1/18/2006	9.2	9.20	0.65	6.01	5691	59.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	747.8761794
5592050	6/29/2006	9.2	9.20	0.65	6.01	5691	59.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	747.8761794
5592050	11/28/2011	9.2	9.20	0.65	6.01	5691	59.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	747.8761794
5592050	6/16/1991	9.1	9.10	0.65	5.94	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	739.7470905
5592050	6/22/1991	9.1	9.10	0.65	5.94	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	739.7470905
5592050	12/23/1991	9.1	9.10	0.65	5.94	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	739.7470905
5592050	5/23/1992	9.1	9.10	0.65	5.94	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	739.7470905
5592050	7/16/1992	9.1	9.10	0.65	5.94	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	739.7470905
5592050	7/12/2003	9.1	9.10	0.65	5.94	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	739.7470905
5592050	2/19/2006	9.1	9.10	0.65	5.94	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	739.7470905
5592050	8/18/2006	9.1	9.10	0.65	5.94	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	739.7470905
5592050	7/23/2008	9.1	9.10	0.65	5.94	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	739.7470905
5592050	12/8/2011	9.1	9.10	0.65	5.94	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	739.7470905
5592050	9/5/2012	9.1	9.10	0.65	5.94	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	739.7470905
5592050	7/21/2013	9.1	9.10	0.65	5.94	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	739.7470905
5592050	2/10/2014	9.1	9.10	0.65	5.94	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	739.7470905
5592050	7/8/1990	9	9.00	0.65	5.88	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	731.6180016
5592050	6/9/1991	9	9.00	0.65	5.88	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	731.6180016
5592050	7/3/1992	9	9.00	0.65	5.88	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	731.6180016
5592050	1/9/1995	9	9.00	0.65	5.88	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	731.6180016
5592050	11/12/1995	9	9.00	0.65	5.88	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	731.6180016
5592050	1/3/1996	9	9.00	0.65	5.88	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	731.6180016
5592050	6/23/1997	9	9.00	0.65	5.88	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	731.6180016
5592050	1/4/1999	9	9.00	0.65	5.88	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	731.6180016
5592050	12/20/2002	9	9.00	0.65	5.88	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	731.6180016
5592050	3/8/2003	9	9.00	0.65	5.88	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	731.6180016

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/3/2003	9	9.00	0.65	5.88	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	731.6180016
5592050	1/4/2008	9	9.00	0.65	5.88	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	731.6180016
5592050	10/4/2008	9	9.00	0.65	5.88	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	731.6180016
5592050	1/8/2012	9	9.00	0.65	5.88	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	731.6180016
5592050	1/11/2013	9	9.00	0.65	5.88	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	731.6180016
5592050	7/2/2014	9	9.00	0.65	5.88	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	731.6180016
5592050	11/8/1996	8.9	8.90	0.65	5.81	5727	59.8183%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	723.4889126
5592050	6/10/2003	8.9	8.90	0.65	5.81	5727	59.8183%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	723.4889126
5592050	7/24/2009	8.9	8.90	0.65	5.81	5727	59.8183%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	723.4889126
5592050	7/19/2014	8.9	8.90	0.65	5.81	5727	59.8183%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	723.4889126
5592050	11/20/2014	8.9	8.90	0.65	5.81	5727	59.8183%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	723.4889126
5592050	3/23/1990	8.8	8.80	0.65	5.74	5732	59.8705%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	715.3598237
5592050	8/16/1995	8.8	8.80	0.65	5.74	5732	59.8705%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	715.3598237
5592050	6/24/2004	8.8	8.80	0.65	5.74	5732	59.8705%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	715.3598237
5592050	8/7/2008	8.8	8.80	0.65	5.74	5732	59.8705%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	715.3598237
5592050	9/25/2010	8.8	8.80	0.65	5.74	5732	59.8705%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	715.3598237
5592050	12/18/2012	8.8	8.80	0.65	5.74	5732	59.8705%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	715.3598237
5592050	3/28/1990	8.7	8.70	0.65	5.68	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	707.2307348
5592050	12/14/1997	8.7	8.70	0.65	5.68	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	707.2307348
5592050	7/5/1999	8.7	8.70	0.65	5.68	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	707.2307348
5592050	8/27/2000	8.7	8.70	0.65	5.68	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	707.2307348
5592050	9/21/2000	8.7	8.70	0.65	5.68	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	707.2307348
5592050	7/10/2001	8.7	8.70	0.65	5.68	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	707.2307348
5592050	7/26/2001	8.7	8.70	0.65	5.68	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	707.2307348
5592050	7/22/2006	8.7	8.70	0.65	5.68	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	707.2307348
5592050	8/22/2006	8.7	8.70	0.65	5.68	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	707.2307348
5592050	5/22/2007	8.7	8.70	0.65	5.68	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	707.2307348
5592050	6/23/2007	8.7	8.70	0.65	5.68	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	707.2307348
5592050	7/7/2007	8.7	8.70	0.65	5.68	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	707.2307348
5592050	7/24/2007	8.7	8.70	0.65	5.68	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	707.2307348
5592050	8/5/2007	8.7	8.70	0.65	5.68	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	707.2307348
5592050	8/9/2007	8.7	8.70	0.65	5.68	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	707.2307348
5592050	8/13/2007	8.7	8.70	0.65	5.68	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	707.2307348
5592050	9/21/2010	8.7	8.70	0.65	5.68	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	707.2307348
5592050	12/17/2012	8.7	8.70	0.65	5.68	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	707.2307348
5592050	7/22/2015	8.7	8.70	0.65	5.68	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	707.2307348
5592050	11/6/1990	8.6	8.60	0.65	5.61	5757	60.1316%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	699.1016459
5592050	1/29/1992	8.6	8.60	0.65	5.61	5757	60.1316%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	699.1016459
5592050	4/10/2003	8.6	8.60	0.65	5.61	5757	60.1316%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	699.1016459
5592050	6/9/2003	8.6	8.60	0.65	5.61	5757	60.1316%	Non-volatile solids	36	mg/L	23.1	28.3	1089.509059	699.1016459
5592050	2/18/2006	8.6	8.60	0.65	5.61	5757	60.1316%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	699.1016459
5592050	3/8/2006	8.6	8.60	0.65	5.61	5757	60.1316%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	699.1016459
5592050	7/16/2010	8.6	8.60	0.65	5.61	5757	60.1316%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	699.1016459
5592050	9/26/2010	8.6	8.60	0.65	5.61	5757	60.1316%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	699.1016459

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/14/2011	8.6	8.60	0.65	5.61	5757	60.1316%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	699.1016459
5592050	1/30/1992	8.5	8.50	0.65	5.55	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	690.972557
5592050	2/20/1992	8.5	8.50	0.65	5.55	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	690.972557
5592050	1/10/1995	8.5	8.50	0.65	5.55	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	690.972557
5592050	12/24/1995	8.5	8.50	0.65	5.55	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	690.972557
5592050	12/25/1996	8.5	8.50	0.65	5.55	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	690.972557
5592050	12/28/1996	8.5	8.50	0.65	5.55	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	690.972557
5592050	1/5/1999	8.5	8.50	0.65	5.55	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	690.972557
5592050	8/9/2000	8.5	8.50	0.65	5.55	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	690.972557
5592050	1/20/2008	8.5	8.50	0.65	5.55	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	690.972557
5592050	8/3/2010	8.5	8.50	0.65	5.55	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	690.972557
5592050	1/9/2012	8.5	8.50	0.65	5.55	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	690.972557
5592050	11/14/2012	8.5	8.50	0.65	5.55	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	690.972557
5592050	3/22/1990	8.4	8.40	0.65	5.48	5778	60.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	682.8434681
5592050	11/22/1991	8.4	8.40	0.65	5.48	5778	60.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	682.8434681
5592050	8/26/1993	8.4	8.40	0.65	5.48	5778	60.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	682.8434681
5592050	12/6/1996	8.4	8.40	0.65	5.48	5778	60.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	682.8434681
5592050	12/4/1997	8.4	8.40	0.65	5.48	5778	60.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	682.8434681
5592050	1/19/2006	8.4	8.40	0.65	5.48	5778	60.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	682.8434681
5592050	1/21/2006	8.4	8.40	0.65	5.48	5778	60.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	682.8434681
5592050	8/10/2007	8.4	8.40	0.65	5.48	5778	60.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	682.8434681
5592050	8/6/2008	8.4	8.40	0.65	5.48	5778	60.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	682.8434681
5592050	12/9/2011	8.4	8.40	0.65	5.48	5778	60.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	682.8434681
5592050	2/2/1990	8.3	8.30	0.65	5.42	5788	60.4554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	674.7143792
5592050	10/17/1990	8.3	8.30	0.65	5.42	5788	60.4554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	674.7143792
5592050	6/10/1991	8.3	8.30	0.65	5.42	5788	60.4554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	674.7143792
5592050	8/22/1993	8.3	8.30	0.65	5.42	5788	60.4554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	674.7143792
5592050	9/30/2000	8.3	8.30	0.65	5.42	5788	60.4554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	674.7143792
5592050	6/15/2005	8.3	8.30	0.65	5.42	5788	60.4554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	674.7143792
5592050	6/30/2006	8.3	8.30	0.65	5.42	5788	60.4554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	674.7143792
5592050	7/27/2009	8.3	8.30	0.65	5.42	5788	60.4554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	674.7143792
5592050	6/5/2012	8.3	8.30	0.65	5.42	5788	60.4554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	674.7143792
5592050	10/24/2012	8.3	8.30	0.65	5.42	5788	60.4554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	674.7143792
5592050	3/19/1990	8.2	8.20	0.65	5.35	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	666.5852903
5592050	2/1/1992	8.2	8.20	0.65	5.35	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	666.5852903
5592050	5/19/1992	8.2	8.20	0.65	5.35	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	666.5852903
5592050	8/17/1995	8.2	8.20	0.65	5.35	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	666.5852903
5592050	12/7/1996	8.2	8.20	0.65	5.35	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	666.5852903
5592050	7/30/1998	8.2	8.20	0.65	5.35	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	666.5852903
5592050	4/20/2003	8.2	8.20	0.65	5.35	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	666.5852903
5592050	6/7/2005	8.2	8.20	0.65	5.35	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	666.5852903
5592050	8/15/2006	8.2	8.20	0.65	5.35	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	666.5852903
5592050	9/8/2008	8.2	8.20	0.65	5.35	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	666.5852903
5592050	9/22/2010	8.2	8.20	0.65	5.35	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	666.5852903

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	1/10/2012	8.2	8.20	0.65	5.35	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	666.5852903
5592050	12/19/2012	8.2	8.20	0.65	5.35	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	666.5852903
5592050	6/11/1991	8.1	8.10	0.65	5.29	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.4562014
5592050	12/13/1991	8.1	8.10	0.65	5.29	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.4562014
5592050	11/2/1995	8.1	8.10	0.65	5.29	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.4562014
5592050	7/26/1998	8.1	8.10	0.65	5.29	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.4562014
5592050	7/18/2002	8.1	8.10	0.65	5.29	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.4562014
5592050	1/20/2006	8.1	8.10	0.65	5.29	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.4562014
5592050	2/22/2006	8.1	8.10	0.65	5.29	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.4562014
5592050	8/17/2006	8.1	8.10	0.65	5.29	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.4562014
5592050	5/23/2007	8.1	8.10	0.65	5.29	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.4562014
5592050	7/25/2008	8.1	8.10	0.65	5.29	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.4562014
5592050	8/20/2009	8.1	8.10	0.65	5.29	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.4562014
5592050	9/27/2010	8.1	8.10	0.65	5.29	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.4562014
5592050	7/9/1990	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	7/24/1990	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	6/12/1991	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	1/10/1992	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	11/5/1992	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	6/24/1997	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	7/2/1997	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	7/6/1999	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	9/27/2003	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	6/9/2005	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	6/11/2005	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	1/22/2006	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	2/20/2006	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	2/21/2006	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	11/2/2006	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	11/4/2006	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	1/30/2008	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	10/5/2008	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	7/18/2011	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	12/10/2012	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	12/29/2012	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	1/10/2014	8	8.00	0.65	5.22	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	650.3271125
5592050	2/5/1990	7.9	7.90	0.65	5.16	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	642.1980236
5592050	10/24/1990	7.9	7.90	0.65	5.16	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	642.1980236
5592050	6/15/1991	7.9	7.90	0.65	5.16	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	642.1980236
5592050	7/11/1994	7.9	7.90	0.65	5.16	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	642.1980236
5592050	11/8/1994	7.9	7.90	0.65	5.16	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	642.1980236
5592050	6/2/2000	7.9	7.90	0.65	5.16	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	642.1980236
5592050	8/28/2000	7.9	7.90	0.65	5.16	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	642.1980236
5592050	6/12/2005	7.9	7.90	0.65	5.16	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	642.1980236

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/13/2005	7.9	7.90	0.65	5.16	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	642.1980236
5592050	1/23/2006	7.9	7.90	0.65	5.16	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	642.1980236
5592050	1/24/2006	7.9	7.90	0.65	5.16	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	642.1980236
5592050	8/8/2007	7.9	7.90	0.65	5.16	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	642.1980236
5592050	8/12/2007	7.9	7.90	0.65	5.16	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	642.1980236
5592050	12/10/2011	7.9	7.90	0.65	5.16	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	642.1980236
5592050	1/11/2012	7.9	7.90	0.65	5.16	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	642.1980236
5592050	8/27/2012	7.9	7.90	0.65	5.16	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	642.1980236
5592050	9/8/2012	7.9	7.90	0.65	5.16	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	642.1980236
5592050	12/16/2012	7.9	7.90	0.65	5.16	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	642.1980236
5592050	1/14/1992	7.8	7.80	0.65	5.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	634.0689347
5592050	2/21/1992	7.8	7.80	0.65	5.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	634.0689347
5592050	2/22/1992	7.8	7.80	0.65	5.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	634.0689347
5592050	5/24/1992	7.8	7.80	0.65	5.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	634.0689347
5592050	12/18/1995	7.8	7.80	0.65	5.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	634.0689347
5592050	1/6/1999	7.8	7.80	0.65	5.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	634.0689347
5592050	8/4/2000	7.8	7.80	0.65	5.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	634.0689347
5592050	6/28/2003	7.8	7.80	0.65	5.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	634.0689347
5592050	7/16/2004	7.8	7.80	0.65	5.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	634.0689347
5592050	6/10/2005	7.8	7.80	0.65	5.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	634.0689347
5592050	2/5/2006	7.8	7.80	0.65	5.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	634.0689347
5592050	8/16/2006	7.8	7.80	0.65	5.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	634.0689347
5592050	6/6/2007	7.8	7.80	0.65	5.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	634.0689347
5592050	8/11/2007	7.8	7.80	0.65	5.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	634.0689347
5592050	7/19/2010	7.8	7.80	0.65	5.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	634.0689347
5592050	3/21/1990	7.7	7.70	0.65	5.03	5878	61.3954%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	625.9398458
5592050	2/23/1992	7.7	7.70	0.65	5.03	5878	61.3954%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	625.9398458
5592050	7/21/1992	7.7	7.70	0.65	5.03	5878	61.3954%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	625.9398458
5592050	7/31/1998	7.7	7.70	0.65	5.03	5878	61.3954%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	625.9398458
5592050	6/8/2005	7.7	7.70	0.65	5.03	5878	61.3954%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	625.9398458
5592050	7/1/2006	7.7	7.70	0.65	5.03	5878	61.3954%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	625.9398458
5592050	8/14/2006	7.7	7.70	0.65	5.03	5878	61.3954%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	625.9398458
5592050	8/4/2010	7.7	7.70	0.65	5.03	5878	61.3954%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	625.9398458
5592050	9/28/2010	7.7	7.70	0.65	5.03	5878	61.3954%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	625.9398458
5592050	3/20/1990	7.6	7.60	0.65	4.96	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	617.8107569
5592050	7/15/1990	7.6	7.60	0.65	4.96	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	617.8107569
5592050	11/5/1990	7.6	7.60	0.65	4.96	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	617.8107569
5592050	5/20/1992	7.6	7.60	0.65	4.96	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	617.8107569
5592050	7/26/1996	7.6	7.60	0.65	4.96	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	617.8107569
5592050	12/29/1996	7.6	7.60	0.65	4.96	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	617.8107569
5592050	1/5/1997	7.6	7.60	0.65	4.96	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	617.8107569
5592050	7/27/1998	7.6	7.60	0.65	4.96	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	617.8107569
5592050	7/7/1999	7.6	7.60	0.65	4.96	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	617.8107569
5592050	5/24/2007	7.6	7.60	0.65	4.96	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	617.8107569

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	5/25/2007	7.6	7.60	0.65	4.96	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	617.8107569
5592050	8/7/2007	7.6	7.60	0.65	4.96	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	617.8107569
5592050	8/15/2007	7.6	7.60	0.65	4.96	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	617.8107569
5592050	12/11/2011	7.6	7.60	0.65	4.96	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	617.8107569
5592050	7/12/1990	7.5	7.50	0.65	4.90	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	609.681668
5592050	12/25/1991	7.5	7.50	0.65	4.90	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	609.681668
5592050	5/21/1992	7.5	7.50	0.65	4.90	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	609.681668
5592050	7/8/1992	7.5	7.50	0.65	4.90	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	609.681668
5592050	7/15/1995	7.5	7.50	0.65	4.90	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	609.681668
5592050	1/4/1996	7.5	7.50	0.65	4.90	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	609.681668
5592050	1/15/1996	7.5	7.50	0.65	4.90	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	609.681668
5592050	7/22/2000	7.5	7.50	0.65	4.90	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	609.681668
5592050	1/17/2006	7.5	7.50	0.65	4.90	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	609.681668
5592050	7/23/2007	7.5	7.50	0.65	4.90	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	609.681668
5592050	8/6/2007	7.5	7.50	0.65	4.90	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	609.681668
5592050	7/17/2010	7.5	7.50	0.65	4.90	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	609.681668
5592050	1/12/2012	7.5	7.50	0.65	4.90	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	609.681668
5592050	12/23/2013	7.5	7.50	0.65	4.90	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	609.681668
5592050	8/28/2014	7.5	7.50	0.65	4.90	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	609.681668
5592050	7/23/2015	7.5	7.50	0.65	4.90	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	609.681668
5592050	2/4/1990	7.4	7.40	0.65	4.83	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	601.5525791
5592050	5/22/1992	7.4	7.40	0.65	4.83	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	601.5525791
5592050	6/12/1992	7.4	7.40	0.65	4.83	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	601.5525791
5592050	6/14/1992	7.4	7.40	0.65	4.83	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	601.5525791
5592050	7/31/1995	7.4	7.40	0.65	4.83	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	601.5525791
5592050	12/5/1996	7.4	7.40	0.65	4.83	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	601.5525791
5592050	1/7/1999	7.4	7.40	0.65	4.83	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	601.5525791
5592050	9/7/2003	7.4	7.40	0.65	4.83	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	601.5525791
5592050	7/6/2005	7.4	7.40	0.65	4.83	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	601.5525791
5592050	1/25/2006	7.4	7.40	0.65	4.83	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	601.5525791
5592050	2/23/2006	7.4	7.40	0.65	4.83	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	601.5525791
5592050	8/13/2006	7.4	7.40	0.65	4.83	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	601.5525791
5592050	10/6/2008	7.4	7.40	0.65	4.83	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	601.5525791
5592050	9/19/2014	7.4	7.40	0.65	4.83	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	601.5525791
5592050	11/25/2015	7.4	7.40	0.65	4.83	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	601.5525791
5592050	2/24/1992	7.3	7.30	0.65	4.77	5932	61.9595%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.4234901
5592050	7/11/2001	7.3	7.30	0.65	4.77	5932	61.9595%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.4234901
5592050	6/25/2004	7.3	7.30	0.65	4.77	5932	61.9595%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.4234901
5592050	6/25/2005	7.3	7.30	0.65	4.77	5932	61.9595%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.4234901
5592050	8/14/2007	7.3	7.30	0.65	4.77	5932	61.9595%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.4234901
5592050	1/21/2008	7.3	7.30	0.65	4.77	5932	61.9595%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.4234901
5592050	10/27/2010	7.3	7.30	0.65	4.77	5932	61.9595%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.4234901
5592050	12/12/2011	7.3	7.30	0.65	4.77	5932	61.9595%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.4234901
5592050	12/13/2011	7.3	7.30	0.65	4.77	5932	61.9595%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.4234901

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/25/2013	7.3	7.30	0.65	4.77	5932	61.9595%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.4234901
5592050	7/13/1990	7.2	7.20	0.65	4.70	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	585.2944012
5592050	6/13/1991	7.2	7.20	0.65	4.70	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	585.2944012
5592050	12/1/1991	7.2	7.20	0.65	4.70	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	585.2944012
5592050	6/16/1992	7.2	7.20	0.65	4.70	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	585.2944012
5592050	7/21/1994	7.2	7.20	0.65	4.70	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	585.2944012
5592050	11/29/1996	7.2	7.20	0.65	4.70	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	585.2944012
5592050	8/12/1998	7.2	7.20	0.65	4.70	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	585.2944012
5592050	7/28/2007	7.2	7.20	0.65	4.70	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	585.2944012
5592050	7/24/2008	7.2	7.20	0.65	4.70	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	585.2944012
5592050	9/29/2010	7.2	7.20	0.65	4.70	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	585.2944012
5592050	1/13/2012	7.2	7.20	0.65	4.70	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	585.2944012
5592050	6/6/2012	7.2	7.20	0.65	4.70	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	585.2944012
5592050	2/11/2014	7.2	7.20	0.65	4.70	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	585.2944012
5592050	7/20/2014	7.2	7.20	0.65	4.70	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	585.2944012
5592050	1/8/1992	7.1	7.10	0.65	4.64	5956	62.2102%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	577.1653123
5592050	1/22/1992	7.1	7.10	0.65	4.64	5956	62.2102%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	577.1653123
5592050	8/3/1992	7.1	7.10	0.65	4.64	5956	62.2102%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	577.1653123
5592050	12/4/1996	7.1	7.10	0.65	4.64	5956	62.2102%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	577.1653123
5592050	11/3/1998	7.1	7.10	0.65	4.64	5956	62.2102%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	577.1653123
5592050	7/14/2006	7.1	7.10	0.65	4.64	5956	62.2102%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	577.1653123
5592050	10/23/2012	7.1	7.10	0.65	4.64	5956	62.2102%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	577.1653123
5592050	11/26/2015	7.1	7.10	0.65	4.64	5956	62.2102%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	577.1653123
5592050	1/11/1992	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	2/2/1992	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	5/27/1992	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	7/4/1992	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	7/6/1992	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	8/24/1995	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	12/25/1995	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	6/25/1997	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	7/3/1997	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	7/29/1998	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	1/8/1999	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	1/11/1999	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	1/3/2003	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	4/9/2003	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	4/11/2003	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	4/18/2003	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	10/15/2003	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	6/16/2005	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	2/6/2006	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	11/3/2006	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	8/4/2007	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	1/31/2008	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	7/28/2009	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	7/18/2010	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	7/26/2011	7	7.00	0.65	4.57	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	569.0362234
5592050	7/11/1990	6.9	6.90	0.65	4.50	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	560.9071345
5592050	11/7/1990	6.9	6.90	0.65	4.50	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	560.9071345
5592050	1/13/1992	6.9	6.90	0.65	4.50	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	560.9071345
5592050	2/25/1992	6.9	6.90	0.65	4.50	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	560.9071345
5592050	8/27/1993	6.9	6.90	0.65	4.50	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	560.9071345
5592050	9/1/1993	6.9	6.90	0.65	4.50	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	560.9071345
5592050	7/28/1998	6.9	6.90	0.65	4.50	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	560.9071345
5592050	6/6/2000	6.9	6.90	0.65	4.50	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	560.9071345
5592050	8/23/2000	6.9	6.90	0.65	4.50	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	560.9071345
5592050	6/7/2007	6.9	6.90	0.65	4.50	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	560.9071345
5592050	10/28/2010	6.9	6.90	0.65	4.50	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	560.9071345
5592050	12/30/2012	6.9	6.90	0.65	4.50	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	560.9071345
5592050	7/3/2014	6.9	6.90	0.65	4.50	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	560.9071345
5592050	11/23/2015	6.9	6.90	0.65	4.50	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	560.9071345
5592050	7/10/1990	6.8	6.80	0.65	4.44	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	552.7780456
5592050	7/16/1990	6.8	6.80	0.65	4.44	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	552.7780456
5592050	10/25/1990	6.8	6.80	0.65	4.44	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	552.7780456
5592050	2/27/1992	6.8	6.80	0.65	4.44	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	552.7780456
5592050	11/28/1996	6.8	6.80	0.65	4.44	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	552.7780456
5592050	12/26/1996	6.8	6.80	0.65	4.44	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	552.7780456
5592050	12/27/1996	6.8	6.80	0.65	4.44	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	552.7780456
5592050	3/9/2003	6.8	6.80	0.65	4.44	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	552.7780456
5592050	7/2/2006	6.8	6.80	0.65	4.44	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	552.7780456
5592050	6/8/2007	6.8	6.80	0.65	4.44	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	552.7780456
5592050	7/26/2008	6.8	6.80	0.65	4.44	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	552.7780456
5592050	10/17/2009	6.8	6.80	0.65	4.44	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	552.7780456
5592050	1/16/2012	6.8	6.80	0.65	4.44	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	552.7780456
5592050	12/11/2012	6.8	6.80	0.65	4.44	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	552.7780456
5592050	7/24/2015	6.8	6.80	0.65	4.44	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	552.7780456
5592050	11/19/2015	6.8	6.80	0.65	4.44	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	552.7780456
5592050	10/15/1990	6.7	6.70	0.65	4.37	6019	62.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	544.6489567
5592050	2/26/1992	6.7	6.70	0.65	4.37	6019	62.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	544.6489567
5592050	5/26/1992	6.7	6.70	0.65	4.37	6019	62.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	544.6489567
5592050	9/20/2000	6.7	6.70	0.65	4.37	6019	62.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	544.6489567
5592050	7/8/2007	6.7	6.70	0.65	4.37	6019	62.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	544.6489567
5592050	8/3/2007	6.7	6.70	0.65	4.37	6019	62.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	544.6489567
5592050	10/26/2010	6.7	6.70	0.65	4.37	6019	62.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	544.6489567
5592050	1/14/2012	6.7	6.70	0.65	4.37	6019	62.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	544.6489567
5592050	9/21/2014	6.7	6.70	0.65	4.37	6019	62.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	544.6489567
5592050	7/14/1990	6.6	6.60	0.65	4.31	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	536.5198678

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	1/12/1992	6.6	6.60	0.65	4.31	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	536.5198678
5592050	2/3/1992	6.6	6.60	0.65	4.31	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	536.5198678
5592050	8/31/1993	6.6	6.60	0.65	4.31	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	536.5198678
5592050	7/16/1995	6.6	6.60	0.65	4.31	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	536.5198678
5592050	12/30/2005	6.6	6.60	0.65	4.31	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	536.5198678
5592050	8/23/2006	6.6	6.60	0.65	4.31	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	536.5198678
5592050	1/22/2008	6.6	6.60	0.65	4.31	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	536.5198678
5592050	9/9/2008	6.6	6.60	0.65	4.31	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	536.5198678
5592050	8/6/2009	6.6	6.60	0.65	4.31	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	536.5198678
5592050	8/5/2010	6.6	6.60	0.65	4.31	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	536.5198678
5592050	11/7/2010	6.6	6.60	0.65	4.31	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	536.5198678
5592050	11/8/2010	6.6	6.60	0.65	4.31	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	536.5198678
5592050	12/26/1991	6.5	6.50	0.65	4.24	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	528.3907789
5592050	1/15/1992	6.5	6.50	0.65	4.24	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	528.3907789
5592050	5/25/1992	6.5	6.50	0.65	4.24	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	528.3907789
5592050	7/12/1994	6.5	6.50	0.65	4.24	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	528.3907789
5592050	1/5/1996	6.5	6.50	0.65	4.24	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	528.3907789
5592050	1/14/1996	6.5	6.50	0.65	4.24	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	528.3907789
5592050	7/27/1996	6.5	6.50	0.65	4.24	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	528.3907789
5592050	12/8/1996	6.5	6.50	0.65	4.24	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	528.3907789
5592050	1/9/1999	6.5	6.50	0.65	4.24	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	528.3907789
5592050	7/8/1999	6.5	6.50	0.65	4.24	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	528.3907789
5592050	3/27/2000	6.5	6.50	0.65	4.24	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	528.3907789
5592050	7/19/2002	6.5	6.50	0.65	4.24	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	528.3907789
5592050	6/26/2004	6.5	6.50	0.65	4.24	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	528.3907789
5592050	1/26/2006	6.5	6.50	0.65	4.24	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	528.3907789
5592050	1/28/2006	6.5	6.50	0.65	4.24	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	528.3907789
5592050	7/21/2007	6.5	6.50	0.65	4.24	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	528.3907789
5592050	9/30/2010	6.5	6.50	0.65	4.24	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	528.3907789
5592050	11/9/2010	6.5	6.50	0.65	4.24	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	528.3907789
5592050	1/15/2012	6.5	6.50	0.65	4.24	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	528.3907789
5592050	2/19/2000	6.4	6.40	0.65	4.18	6060	63.2964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	520.26169
5592050	2/7/2006	6.4	6.40	0.65	4.18	6060	63.2964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	520.26169
5592050	10/26/2006	6.4	6.40	0.65	4.18	6060	63.2964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	520.26169
5592050	6/9/2007	6.4	6.40	0.65	4.18	6060	63.2964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	520.26169
5592050	7/22/2007	6.4	6.40	0.65	4.18	6060	63.2964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	520.26169
5592050	1/29/2008	6.4	6.40	0.65	4.18	6060	63.2964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	520.26169
5592050	11/5/2010	6.4	6.40	0.65	4.18	6060	63.2964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	520.26169
5592050	11/10/2010	6.4	6.40	0.65	4.18	6060	63.2964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	520.26169
5592050	11/20/2010	6.4	6.40	0.65	4.18	6060	63.2964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	520.26169
5592050	9/14/2014	6.4	6.40	0.65	4.18	6060	63.2964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	520.26169
5592050	2/6/1990	6.3	6.30	0.65	4.11	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	512.1326011
5592050	6/17/1991	6.3	6.30	0.65	4.11	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	512.1326011
5592050	2/4/1992	6.3	6.30	0.65	4.11	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	512.1326011

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	2/28/1992	6.3	6.30	0.65	4.11	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	512.1326011
5592050	7/23/2002	6.3	6.30	0.65	4.11	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	512.1326011
5592050	6/29/2003	6.3	6.30	0.65	4.11	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	512.1326011
5592050	2/24/2006	6.3	6.30	0.65	4.11	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	512.1326011
5592050	3/2/2006	6.3	6.30	0.65	4.11	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	512.1326011
5592050	7/11/2007	6.3	6.30	0.65	4.11	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	512.1326011
5592050	2/1/2008	6.3	6.30	0.65	4.11	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	512.1326011
5592050	7/29/2009	6.3	6.30	0.65	4.11	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	512.1326011
5592050	8/14/2010	6.3	6.30	0.65	4.11	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	512.1326011
5592050	11/6/2010	6.3	6.30	0.65	4.11	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	512.1326011
5592050	11/11/2010	6.3	6.30	0.65	4.11	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	512.1326011
5592050	11/12/2010	6.3	6.30	0.65	4.11	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	512.1326011
5592050	11/13/2010	6.3	6.30	0.65	4.11	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	512.1326011
5592050	11/22/2010	6.3	6.30	0.65	4.11	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	512.1326011
5592050	11/24/2011	6.3	6.30	0.65	4.11	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	512.1326011
5592050	3/7/1992	6.2	6.20	0.65	4.05	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	504.0035122
5592050	6/13/1992	6.2	6.20	0.65	4.05	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	504.0035122
5592050	7/17/1995	6.2	6.20	0.65	4.05	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	504.0035122
5592050	11/13/1995	6.2	6.20	0.65	4.05	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	504.0035122
5592050	12/15/1997	6.2	6.20	0.65	4.05	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	504.0035122
5592050	1/10/1999	6.2	6.20	0.65	4.05	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	504.0035122
5592050	1/27/2006	6.2	6.20	0.65	4.05	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	504.0035122
5592050	2/8/2006	6.2	6.20	0.65	4.05	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	504.0035122
5592050	2/25/2006	6.2	6.20	0.65	4.05	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	504.0035122
5592050	3/1/2006	6.2	6.20	0.65	4.05	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	504.0035122
5592050	7/3/2006	6.2	6.20	0.65	4.05	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	504.0035122
5592050	11/29/2007	6.2	6.20	0.65	4.05	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	504.0035122
5592050	10/29/2010	6.2	6.20	0.65	4.05	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	504.0035122
5592050	11/2/2010	6.2	6.20	0.65	4.05	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	504.0035122
5592050	11/15/2010	6.2	6.20	0.65	4.05	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	504.0035122
5592050	6/7/2012	6.2	6.20	0.65	4.05	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	504.0035122
5592050	7/31/2013	6.2	6.20	0.65	4.05	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	504.0035122
5592050	7/25/2015	6.2	6.20	0.65	4.05	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	504.0035122
5592050	11/21/2015	6.2	6.20	0.65	4.05	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	504.0035122
5592050	11/24/2015	6.2	6.20	0.65	4.05	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	504.0035122
5592050	3/6/1992	6.1	6.10	0.65	3.98	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	495.8744233
5592050	10/19/1994	6.1	6.10	0.65	3.98	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	495.8744233
5592050	8/18/1995	6.1	6.10	0.65	3.98	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	495.8744233
5592050	6/3/2000	6.1	6.10	0.65	3.98	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	495.8744233
5592050	8/29/2000	6.1	6.10	0.65	3.98	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	495.8744233
5592050	10/1/2000	6.1	6.10	0.65	3.98	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	495.8744233
5592050	7/12/2001	6.1	6.10	0.65	3.98	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	495.8744233
5592050	8/2/2007	6.1	6.10	0.65	3.98	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	495.8744233
5592050	11/3/2010	6.1	6.10	0.65	3.98	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	495.8744233

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/14/2010	6.1	6.10	0.65	3.98	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	495.8744233
5592050	11/17/2010	6.1	6.10	0.65	3.98	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	495.8744233
5592050	11/18/2010	6.1	6.10	0.65	3.98	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	495.8744233
5592050	7/26/2013	6.1	6.10	0.65	3.98	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	495.8744233
5592050	1/31/2014	6.1	6.10	0.65	3.98	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	495.8744233
5592050	10/26/1990	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	8/28/1993	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	12/26/1995	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	1/6/1996	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	1/13/1996	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	12/30/1996	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	1/18/1997	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	6/26/1997	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	11/13/1998	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	7/10/1999	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	7/23/2000	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	7/28/2003	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	10/11/2003	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	2/12/2006	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	7/16/2007	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	1/23/2008	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	2/3/2008	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	8/6/2010	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	11/16/2010	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	11/19/2010	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	7/19/2011	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	7/4/2014	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	7/26/2015	6	6.00	0.65	3.92	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	487.7453344
5592050	2/5/1992	5.9	5.90	0.65	3.85	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	479.6162455
5592050	2/29/1992	5.9	5.90	0.65	3.85	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	479.6162455
5592050	6/15/1992	5.9	5.90	0.65	3.85	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	479.6162455
5592050	11/6/1992	5.9	5.90	0.65	3.85	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	479.6162455
5592050	12/9/1996	5.9	5.90	0.65	3.85	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	479.6162455
5592050	12/22/1998	5.9	5.90	0.65	3.85	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	479.6162455
5592050	8/10/2000	5.9	5.90	0.65	3.85	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	479.6162455
5592050	7/17/2004	5.9	5.90	0.65	3.85	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	479.6162455
5592050	1/14/2006	5.9	5.90	0.65	3.85	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	479.6162455
5592050	2/16/2006	5.9	5.90	0.65	3.85	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	479.6162455
5592050	2/28/2006	5.9	5.90	0.65	3.85	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	479.6162455
5592050	8/24/2006	5.9	5.90	0.65	3.85	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	479.6162455
5592050	9/6/2006	5.9	5.90	0.65	3.85	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	479.6162455
5592050	11/1/2010	5.9	5.90	0.65	3.85	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	479.6162455
5592050	1/18/2014	5.9	5.90	0.65	3.85	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	479.6162455
5592050	8/2/2014	5.9	5.90	0.65	3.85	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	479.6162455

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/27/2015	5.9	5.90	0.65	3.85	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	479.6162455
5592050	6/14/1991	5.8	5.80	0.65	3.79	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	471.4871566
5592050	12/27/1991	5.8	5.80	0.65	3.79	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	471.4871566
5592050	5/28/1992	5.8	5.80	0.65	3.79	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	471.4871566
5592050	1/7/1996	5.8	5.80	0.65	3.79	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	471.4871566
5592050	1/12/1996	5.8	5.80	0.65	3.79	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	471.4871566
5592050	7/4/1997	5.8	5.80	0.65	3.79	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	471.4871566
5592050	8/1/1998	5.8	5.80	0.65	3.79	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	471.4871566
5592050	2/10/2006	5.8	5.80	0.65	3.79	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	471.4871566
5592050	2/11/2006	5.8	5.80	0.65	3.79	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	471.4871566
5592050	2/26/2006	5.8	5.80	0.65	3.79	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	471.4871566
5592050	7/4/2006	5.8	5.80	0.65	3.79	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	471.4871566
5592050	9/5/2006	5.8	5.80	0.65	3.79	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	471.4871566
5592050	2/2/2008	5.8	5.80	0.65	3.79	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	471.4871566
5592050	7/30/2009	5.8	5.80	0.65	3.79	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	471.4871566
5592050	10/1/2010	5.8	5.80	0.65	3.79	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	471.4871566
5592050	10/25/2010	5.8	5.80	0.65	3.79	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	471.4871566
5592050	10/30/2010	5.8	5.80	0.65	3.79	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	471.4871566
5592050	11/4/2010	5.8	5.80	0.65	3.79	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	471.4871566
5592050	12/31/2012	5.8	5.80	0.65	3.79	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	471.4871566
5592050	7/21/2014	5.8	5.80	0.65	3.79	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	471.4871566
5592050	2/7/1990	5.7	5.70	0.65	3.72	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	463.3580676
5592050	10/16/1990	5.7	5.70	0.65	3.72	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	463.3580676
5592050	2/6/1992	5.7	5.70	0.65	3.72	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	463.3580676
5592050	3/5/1992	5.7	5.70	0.65	3.72	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	463.3580676
5592050	3/8/1992	5.7	5.70	0.65	3.72	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	463.3580676
5592050	1/6/1997	5.7	5.70	0.65	3.72	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	463.3580676
5592050	9/8/2003	5.7	5.70	0.65	3.72	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	463.3580676
5592050	1/16/2006	5.7	5.70	0.65	3.72	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	463.3580676
5592050	7/23/2006	5.7	5.70	0.65	3.72	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	463.3580676
5592050	9/7/2006	5.7	5.70	0.65	3.72	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	463.3580676
5592050	7/27/2008	5.7	5.70	0.65	3.72	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	463.3580676
5592050	10/2/2010	5.7	5.70	0.65	3.72	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	463.3580676
5592050	10/3/2010	5.7	5.70	0.65	3.72	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	463.3580676
5592050	10/23/2010	5.7	5.70	0.65	3.72	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	463.3580676
5592050	10/24/2010	5.7	5.70	0.65	3.72	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	463.3580676
5592050	11/21/2010	5.7	5.70	0.65	3.72	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	463.3580676
5592050	12/9/2012	5.7	5.70	0.65	3.72	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	463.3580676
5592050	2/12/2014	5.7	5.70	0.65	3.72	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	463.3580676
5592050	12/14/1991	5.6	5.60	0.65	3.66	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	455.2289787
5592050	11/1/1994	5.6	5.60	0.65	3.66	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	455.2289787
5592050	8/25/1995	5.6	5.60	0.65	3.66	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	455.2289787
5592050	1/8/1996	5.6	5.60	0.65	3.66	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	455.2289787
5592050	1/11/1996	5.6	5.60	0.65	3.66	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	455.2289787

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/28/1996	5.6	5.60	0.65	3.66	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	455.2289787
5592050	3/22/2000	5.6	5.60	0.65	3.66	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	455.2289787
5592050	6/27/2004	5.6	5.60	0.65	3.66	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	455.2289787
5592050	6/17/2005	5.6	5.60	0.65	3.66	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	455.2289787
5592050	1/15/2006	5.6	5.60	0.65	3.66	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	455.2289787
5592050	2/9/2006	5.6	5.60	0.65	3.66	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	455.2289787
5592050	3/3/2006	5.6	5.60	0.65	3.66	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	455.2289787
5592050	7/9/2007	5.6	5.60	0.65	3.66	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	455.2289787
5592050	7/10/2007	5.6	5.60	0.65	3.66	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	455.2289787
5592050	7/15/2007	5.6	5.60	0.65	3.66	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	455.2289787
5592050	1/24/2008	5.6	5.60	0.65	3.66	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	455.2289787
5592050	10/11/2010	5.6	5.60	0.65	3.66	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	455.2289787
5592050	6/12/2012	5.6	5.60	0.65	3.66	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	455.2289787
5592050	10/26/2012	5.6	5.60	0.65	3.66	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	455.2289787
5592050	7/27/2013	5.6	5.60	0.65	3.66	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	455.2289787
5592050	12/28/1991	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	7/13/1994	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	1/2/1996	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	12/23/1996	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	1/2/1997	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	1/4/1997	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	1/19/1997	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	6/27/1997	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	12/5/1997	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	12/22/1997	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	4/24/2000	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	3/10/2003	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	7/5/2006	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	6/10/2007	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	7/13/2007	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	11/30/2007	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	8/2/2009	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	10/31/2010	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	6/8/2012	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	10/25/2012	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	11/15/2012	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	8/8/2015	5.5	5.50	0.65	3.59	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	447.0998898
5592050	6/23/1991	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	11/23/1991	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	12/29/1991	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	2/7/1992	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	2/14/1992	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	3/1/1992	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	3/15/1992	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/29/1993	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	9/6/1994	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	11/14/1995	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	12/14/1995	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	12/15/1995	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	1/9/1996	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	1/10/1996	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	12/21/2002	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	2/14/2006	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	2/15/2006	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	2/27/2006	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	8/25/2006	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	8/26/2006	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	8/1/2007	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	11/28/2007	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	1/28/2008	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	10/22/2010	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	10/19/2012	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	7/28/2015	5.4	5.40	0.65	3.53	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.9708009
5592050	10/27/1990	5.3	5.30	0.65	3.46	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	430.841712
5592050	3/9/1992	5.3	5.30	0.65	3.46	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	430.841712
5592050	3/11/1992	5.3	5.30	0.65	3.46	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	430.841712
5592050	3/13/1992	5.3	5.30	0.65	3.46	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	430.841712
5592050	8/4/1992	5.3	5.30	0.65	3.46	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	430.841712
5592050	6/5/2000	5.3	5.30	0.65	3.46	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	430.841712
5592050	7/24/2002	5.3	5.30	0.65	3.46	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	430.841712
5592050	6/30/2003	5.3	5.30	0.65	3.46	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	430.841712
5592050	7/12/2007	5.3	5.30	0.65	3.46	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	430.841712
5592050	9/2/2008	5.3	5.30	0.65	3.46	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	430.841712
5592050	8/7/2010	5.3	5.30	0.65	3.46	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	430.841712
5592050	10/21/2010	5.3	5.30	0.65	3.46	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	430.841712
5592050	2/9/1990	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	3/2/1992	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	3/3/1992	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	3/4/1992	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	3/10/1992	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	3/12/1992	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	3/14/1992	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	3/16/1992	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	3/17/1992	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	12/10/1996	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	1/1/1997	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	11/12/1998	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	9/19/2000	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/20/2002	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	7/22/2002	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	4/12/2003	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	4/19/2003	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	7/6/2006	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	7/29/2007	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	11/24/2007	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	1/25/2008	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	7/31/2009	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	10/4/2010	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	1/1/2013	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	7/30/2013	5.2	5.20	0.65	3.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	422.7126231
5592050	11/8/1990	5.1	5.10	0.65	3.33	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	414.5835342
5592050	11/3/1995	5.1	5.10	0.65	3.33	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	414.5835342
5592050	7/5/1997	5.1	5.10	0.65	3.33	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	414.5835342
5592050	6/4/2000	5.1	5.10	0.65	3.33	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	414.5835342
5592050	6/7/2000	5.1	5.10	0.65	3.33	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	414.5835342
5592050	7/13/2001	5.1	5.10	0.65	3.33	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	414.5835342
5592050	2/13/2006	5.1	5.10	0.65	3.33	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	414.5835342
5592050	7/15/2006	5.1	5.10	0.65	3.33	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	414.5835342
5592050	9/4/2006	5.1	5.10	0.65	3.33	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	414.5835342
5592050	12/9/2007	5.1	5.10	0.65	3.33	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	414.5835342
5592050	8/3/2008	5.1	5.10	0.65	3.33	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	414.5835342
5592050	8/7/2009	5.1	5.10	0.65	3.33	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	414.5835342
5592050	11/8/2011	5.1	5.10	0.65	3.33	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	414.5835342
5592050	1/19/2014	5.1	5.10	0.65	3.33	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	414.5835342
5592050	10/28/1990	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	12/2/1991	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	12/7/1991	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	12/21/1991	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	1/16/1992	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	5/29/1992	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	7/7/1992	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	8/30/1993	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	7/14/1994	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	7/22/1994	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	8/15/1994	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	7/25/1995	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	12/27/1995	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	12/31/1996	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	1/20/1997	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	6/28/1997	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	6/30/1997	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	12/30/1998	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/25/2000	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	10/25/2002	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	2/3/2003	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	4/17/2003	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	4/21/2003	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	10/16/2003	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	20	mg/L	23.1	28.3	351.9086107	406.4544453
5592050	7/6/2004	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	8/29/2006	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	6/11/2007	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	9/9/2007	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	1/27/2008	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	8/15/2010	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	10/17/2010	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	7/25/2011	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	7/27/2011	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	6/9/2012	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	9/20/2014	5	5.00	0.65	3.26	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	406.4544453
5592050	2/10/1990	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	12/6/1991	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	12/12/1991	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	12/30/1991	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	6/17/1992	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	7/29/1996	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	12/11/1996	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	1/3/1997	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	1/7/1997	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	7/24/2000	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	8/19/2000	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	7/21/2002	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	7/13/2003	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	6/28/2004	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	7/18/2004	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	3/4/2006	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	8/23/2008	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	8/1/2009	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	8/8/2010	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	8/21/2010	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	10/5/2010	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	10/7/2010	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	10/10/2010	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	10/13/2010	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	10/14/2010	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	10/15/2010	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	10/20/2010	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/11/2012	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	9/7/2012	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	10/22/2012	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	7/28/2013	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	2/13/2014	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	8/21/2014	4.9	4.90	0.65	3.20	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	398.3253564
5592050	7/25/1990	4.8	4.80	0.65	3.13	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	390.1962675
5592050	12/22/1991	4.8	4.80	0.65	3.13	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	390.1962675
5592050	11/7/1992	4.8	4.80	0.65	3.13	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	390.1962675
5592050	12/16/1997	4.8	4.80	0.65	3.13	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	390.1962675
5592050	8/20/2000	4.8	4.80	0.65	3.13	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	390.1962675
5592050	5/4/2003	4.8	4.80	0.65	3.13	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	390.1962675
5592050	6/18/2005	4.8	4.80	0.65	3.13	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	390.1962675
5592050	7/16/2005	4.8	4.80	0.65	3.13	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	390.1962675
5592050	12/31/2005	4.8	4.80	0.65	3.13	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	390.1962675
5592050	3/6/2006	4.8	4.80	0.65	3.13	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	390.1962675
5592050	7/7/2006	4.8	4.80	0.65	3.13	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	390.1962675
5592050	9/8/2006	4.8	4.80	0.65	3.13	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	390.1962675
5592050	1/26/2008	4.8	4.80	0.65	3.13	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	390.1962675
5592050	8/3/2009	4.8	4.80	0.65	3.13	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	390.1962675
5592050	10/6/2010	4.8	4.80	0.65	3.13	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	390.1962675
5592050	10/18/2010	4.8	4.80	0.65	3.13	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	390.1962675
5592050	10/19/2010	4.8	4.80	0.65	3.13	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	390.1962675
5592050	7/6/2014	4.8	4.80	0.65	3.13	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	390.1962675
5592050	2/8/1990	4.7	4.70	0.65	3.07	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	382.0671786
5592050	7/17/1990	4.7	4.70	0.65	3.07	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	382.0671786
5592050	12/8/1991	4.7	4.70	0.65	3.07	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	382.0671786
5592050	8/26/1995	4.7	4.70	0.65	3.07	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	382.0671786
5592050	8/30/2000	4.7	4.70	0.65	3.07	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	382.0671786
5592050	3/7/2006	4.7	4.70	0.65	3.07	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	382.0671786
5592050	6/12/2007	4.7	4.70	0.65	3.07	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	382.0671786
5592050	7/31/2007	4.7	4.70	0.65	3.07	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	382.0671786
5592050	9/8/2007	4.7	4.70	0.65	3.07	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	382.0671786
5592050	12/4/2007	4.7	4.70	0.65	3.07	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	382.0671786
5592050	10/8/2010	4.7	4.70	0.65	3.07	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	382.0671786
5592050	10/16/2010	4.7	4.70	0.65	3.07	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	382.0671786
5592050	10/18/2012	4.7	4.70	0.65	3.07	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	382.0671786
5592050	7/5/2014	4.7	4.70	0.65	3.07	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	382.0671786
5592050	7/8/2014	4.7	4.70	0.65	3.07	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	382.0671786
5592050	7/29/2015	4.7	4.70	0.65	3.07	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	382.0671786
5592050	2/3/1990	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	1/2/1992	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	5/30/1992	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	7/25/1992	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/10/1997	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	12/17/1997	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	8/13/1998	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	8/16/1998	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	8/17/2000	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	9/9/2003	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	1/13/2006	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	3/5/2006	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	7/8/2006	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	9/7/2007	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	9/10/2008	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	10/9/2010	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	10/12/2010	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	7/20/2011	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	6/10/2012	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	10/28/2012	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	1/2/2013	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	8/1/2013	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	1/9/2014	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	11/20/2015	4.6	4.60	0.65	3.00	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	373.9380897
5592050	10/29/1990	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	12/15/1991	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	1/1/1992	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	2/8/1992	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	7/15/1994	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	7/18/1995	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	1/1/1996	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	6/29/1997	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	7/6/1997	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	8/2/1998	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	8/15/1998	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	7/30/2000	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	8/21/2000	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	7/25/2001	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	7/25/2002	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	10/30/2002	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	1/4/2003	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	7/1/2003	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	9/26/2003	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	11/28/2005	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	1/3/2006	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	10/18/2007	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	8/8/2009	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	10/18/2009	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/20/2009	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	8/9/2010	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	7/30/2011	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	6/13/2012	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	12/12/2012	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	1/10/2013	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	8/9/2014	4.5	4.50	0.65	2.94	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	365.8090008
5592050	10/30/1990	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	6/18/1991	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	12/5/1991	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	5/31/1992	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	6/5/1992	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	11/15/1995	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	7/30/1996	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	1/8/1997	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	4/22/2000	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	8/22/2000	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	7/14/2001	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	4/13/2003	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	7/31/2004	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	11/29/2005	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	7/9/2006	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	6/13/2007	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	9/10/2007	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	12/3/2007	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	10/20/2012	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	12/15/2012	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	1/20/2014	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	2/14/2014	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	7/22/2014	4.4	4.40	0.65	2.87	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	357.6799119
5592050	2/11/1990	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	11/9/1990	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	1/3/1992	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	12/16/1995	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	1/10/1997	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	1/17/1997	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	8/3/1998	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	7/11/1999	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	2/27/2000	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	3/23/2000	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	3/28/2000	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	7/25/2000	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	6/29/2004	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	6/19/2005	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/14/2007	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	7/30/2007	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	9/11/2007	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	12/1/2007	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	12/7/2007	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	10/11/2009	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	11/14/2011	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	11/15/2011	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	11/16/2012	4.3	4.30	0.65	2.81	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349.550823
5592050	12/31/1991	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	1/4/1992	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	1/21/1992	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	2/13/1992	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	7/9/1992	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	11/8/1992	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	7/21/1995	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	12/28/1995	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	8/14/1998	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	8/1/2000	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	7/27/2001	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	7/26/2002	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	1/4/2006	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	7/24/2006	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	9/9/2006	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	12/2/2007	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	8/8/2008	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	9/11/2008	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	7/21/2011	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	11/4/2011	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	10/21/2012	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	7/29/2013	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	12/24/2013	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	2/17/2014	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	7/7/2014	4.2	4.20	0.65	2.74	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	341.4217341
5592050	11/11/1990	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	11/12/1990	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	1/17/1992	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	6/6/1992	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	11/16/1995	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	12/21/1998	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	5/24/2000	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	7/31/2000	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	8/16/2000	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	10/2/2000	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/31/2002	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	7/2/2003	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	7/19/2004	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	8/26/2004	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	6/24/2005	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	7/11/2006	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	7/16/2006	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	6/14/2007	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	8/4/2008	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	11/25/2011	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	1/3/2013	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	7/30/2015	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	8/9/2015	4.1	4.10	0.65	2.68	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	333.2926452
5592050	10/31/1990	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	11/1/1990	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	11/10/1990	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	12/16/1991	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	1/5/1992	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	6/4/1992	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	8/5/1992	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	7/16/1994	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	7/23/1994	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	12/31/1995	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	12/12/1996	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	1/9/1997	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	12/31/1998	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	8/11/2000	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	10/26/2002	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	4/14/2003	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	9/28/2003	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	10/12/2003	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	11/2/2003	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	1/2/2006	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	1/12/2006	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	7/10/2006	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	9/12/2007	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	9/1/2008	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	8/10/2010	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	7/31/2011	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	9/2/2012	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	10/27/2012	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	8/2/2013	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	9/22/2014	4	4.00	0.65	2.61	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	325.1635562
5592050	11/26/1990	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/17/1991	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	2/11/1992	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	2/12/1992	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	7/17/1992	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	11/9/1992	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	8/27/1995	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	11/17/1995	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	11/18/1995	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	1/11/1997	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	12/18/1997	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	4/26/2000	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	5/8/2000	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	8/12/2000	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	8/15/2000	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	2/4/2003	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	7/7/2004	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	6/15/2007	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	11/25/2007	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	12/8/2007	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	8/22/2008	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	8/9/2009	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	10/19/2009	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	7/22/2011	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	6/14/2012	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	11/17/2012	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	1/4/2013	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	1/9/2013	3.9	3.90	0.65	2.55	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	317.0344673
5592050	1/8/1990	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	8/14/1990	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	11/22/1990	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	11/25/1990	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	11/1/1991	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	12/9/1991	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	1/18/1992	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	2/9/1992	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	6/1/1992	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	7/14/1992	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	12/29/1995	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	7/7/1997	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	12/7/1998	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	12/23/1998	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	3/24/2000	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	6/8/2000	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	8/14/2000	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/15/2001	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	7/4/2004	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	6/23/2005	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	9/3/2006	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	8/21/2009	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	8/11/2010	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	11/7/2011	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	12/13/2012	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	8/3/2013	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	1/21/2014	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	2/15/2014	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	7/9/2014	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	8/20/2014	3.8	3.80	0.65	2.48	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	308.9053784
5592050	2/12/1990	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	2/14/1990	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	7/21/1990	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	11/2/1990	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	11/13/1990	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	11/23/1990	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	6/24/1991	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	1/6/1992	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	2/10/1992	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	6/3/1992	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	6/18/1992	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	7/17/1994	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	11/19/1995	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	12/30/1995	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	7/31/1996	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	1/16/1997	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	12/6/1997	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	7/26/2000	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	8/13/2000	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	4/15/2003	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	7/3/2003	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	9/10/2003	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	6/30/2004	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	6/20/2005	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	6/16/2007	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	9/13/2007	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	12/5/2007	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	7/23/2011	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	12/14/2012	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	1/5/2013	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895
5592050	12/14/2013	3.7	3.70	0.65	2.42	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	300.7762895

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/18/1990	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	11/3/1990	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	11/14/1990	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	11/24/1990	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	6/19/1991	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	11/24/1991	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	12/18/1991	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	1/7/1992	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	1/19/1992	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	7/19/1995	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	1/12/1997	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	7/8/1997	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	5/7/2000	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	7/29/2000	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	1/1/2006	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	1/11/2006	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	8/26/2007	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	10/16/2007	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	11/26/2007	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	8/5/2008	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	10/21/2009	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	8/22/2010	3.6	3.60	0.65	2.35	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	292.6472006
5592050	1/7/1990	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	2/13/1990	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	11/15/1990	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	11/21/1990	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	1/20/1992	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	6/19/1992	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	7/18/1994	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	7/24/1994	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	12/13/1996	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	1/13/1997	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	1/14/1997	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	1/15/1997	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	8/19/1998	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	12/8/1998	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	12/29/1998	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	1/1/1999	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	7/12/1999	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	7/27/2002	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	4/16/2003	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	10/17/2003	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	11/3/2003	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	11/7/2003	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/7/2005	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	7/18/2006	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	7/20/2006	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	8/30/2006	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	9/10/2006	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	8/25/2007	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	8/12/2010	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	7/24/2011	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	7/28/2011	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	8/1/2011	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	11/26/2011	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	9/2/2014	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	8/10/2015	3.5	3.50	0.65	2.28	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	284.5181117
5592050	7/26/1990	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	11/4/1990	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	11/16/1990	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	11/20/1995	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	12/17/1995	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	8/1/1996	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	8/18/1998	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	11/14/1998	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	11/15/1998	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	12/24/1998	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	3/29/2000	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	4/17/2000	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	4/27/2000	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	5/23/2000	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	8/31/2000	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	9/18/2000	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	1/6/2003	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	11/16/2003	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	7/20/2004	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	1/5/2006	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	7/17/2006	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	8/7/2006	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	9/14/2007	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	11/27/2007	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	12/6/2007	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	8/10/2009	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	8/13/2010	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	8/23/2010	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	1/22/2014	3.4	3.40	0.65	2.22	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276.3890228
5592050	11/17/1990	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	11/18/1990	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/19/1990	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	11/20/1990	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	12/10/1991	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	6/2/1992	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	8/6/1992	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	8/28/1995	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	11/1/1995	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	8/17/1998	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	2/20/2000	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	4/23/2000	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	7/27/2000	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	7/19/2001	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	12/22/2002	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	5/2/2003	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	7/4/2003	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	7/5/2004	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	7/8/2004	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	1/10/2006	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	7/19/2006	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	7/25/2006	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	6/17/2007	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	8/20/2007	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	8/16/2010	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	6/15/2012	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	10/29/2012	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	11/18/2012	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	1/6/2013	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	8/4/2013	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	12/15/2013	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	2/16/2014	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	7/23/2014	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	7/31/2015	3.3	3.30	0.65	2.15	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268.2599339
5592050	6/20/1991	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	10/31/1991	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	7/20/1995	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	12/14/1996	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	12/15/1996	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	12/16/1996	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	12/19/1997	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	12/25/1998	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	3/25/2000	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	6/9/2000	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	6/13/2000	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	9/12/2000	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/16/2001	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	7/28/2002	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	11/1/2002	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	1/5/2003	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	4/22/2003	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	7/20/2003	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	6/21/2005	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	1/8/2006	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	1/9/2006	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	6/20/2007	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	8/27/2007	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	9/6/2007	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	11/9/2011	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	9/3/2012	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	1/7/2013	3.2	3.20	0.65	2.09	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	260.130845
5592050	7/5/1992	3.1	3.10	0.65	2.02	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252.0017561
5592050	7/22/1992	3.1	3.10	0.65	2.02	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252.0017561
5592050	11/2/1994	3.1	3.10	0.65	2.02	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252.0017561
5592050	8/2/1996	3.1	3.10	0.65	2.02	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252.0017561
5592050	12/17/1996	3.1	3.10	0.65	2.02	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252.0017561
5592050	12/9/1998	3.1	3.10	0.65	2.02	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252.0017561
5592050	4/28/2000	3.1	3.10	0.65	2.02	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252.0017561
5592050	7/18/2001	3.1	3.10	0.65	2.02	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252.0017561
5592050	9/11/2003	3.1	3.10	0.65	2.02	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252.0017561
5592050	7/1/2004	3.1	3.10	0.65	2.02	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252.0017561
5592050	7/30/2004	3.1	3.10	0.65	2.02	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252.0017561
5592050	6/22/2005	3.1	3.10	0.65	2.02	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252.0017561
5592050	1/6/2006	3.1	3.10	0.65	2.02	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252.0017561
5592050	1/7/2006	3.1	3.10	0.65	2.02	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252.0017561
5592050	9/15/2007	3.1	3.10	0.65	2.02	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252.0017561
5592050	8/11/2009	3.1	3.10	0.65	2.02	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252.0017561
5592050	10/22/2009	3.1	3.10	0.65	2.02	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252.0017561
5592050	11/19/2012	3.1	3.10	0.65	2.02	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252.0017561
5592050	12/20/2013	3.1	3.10	0.65	2.02	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252.0017561
5592050	1/23/2014	3.1	3.10	0.65	2.02	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252.0017561
5592050	1/9/1990	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	7/19/1990	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	6/21/1991	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	11/19/1991	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	11/27/1991	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	11/28/1991	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	7/25/1994	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	8/16/1994	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	8/29/1995	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/21/1995	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	9/11/1997	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	11/16/1998	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	12/2/1998	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	12/3/1998	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	12/13/1998	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	12/14/1998	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	12/20/1998	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	12/26/1998	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	7/13/1999	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	3/19/2000	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	3/26/2000	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	6/12/2000	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	7/28/2000	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	9/20/2002	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	1/8/2003	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	5/3/2003	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	7/14/2003	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	10/13/2003	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	11/8/2003	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	7/21/2004	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	8/27/2004	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	9/11/2006	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	6/18/2007	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	8/24/2007	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	8/31/2008	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	8/2/2011	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	1/8/2013	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	8/1/2015	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	8/11/2015	3	3.00	0.65	1.96	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	243.8726672
5592050	11/2/1991	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	12/11/1991	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	11/26/1995	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	11/27/1995	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	7/9/1997	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	12/7/1997	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	12/21/1997	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	12/10/1998	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	12/12/1998	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	12/16/1998	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	12/17/1998	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	12/18/1998	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	12/19/1998	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	2/28/2000	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	3/30/2000	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	7/20/2001	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	6/26/2005	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	7/26/2006	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	8/31/2006	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	6/21/2007	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	9/16/2007	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	11/3/2011	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	11/20/2012	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	8/5/2013	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	8/24/2013	2.9	2.90	0.65	1.89	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	235.7435783
5592050	7/20/1990	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	8/21/1990	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	11/29/1991	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	12/20/1991	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	6/20/1992	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	7/10/1992	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	8/7/1992	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	11/22/1995	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	8/20/1998	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	11/4/1998	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	12/11/1998	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	12/15/1998	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	12/27/1998	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	4/7/2000	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	4/18/2000	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	4/29/2000	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	6/10/2000	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	7/17/2001	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	7/29/2002	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	1/7/2003	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	7/5/2003	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	10/18/2003	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	11/4/2003	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	11/17/2003	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	8/5/2006	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	8/6/2006	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	6/19/2007	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	8/23/2007	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	9/4/2007	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	6/16/2012	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	6/17/2012	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	11/21/2012	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	8/8/2013	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	1/24/2014	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	7/10/2014	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	9/23/2014	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	8/2/2015	2.8	2.80	0.65	1.83	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227.6144894
5592050	8/8/1992	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	7/26/1994	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	11/23/1995	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	11/25/1995	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	11/25/1998	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	12/28/1998	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	7/14/1999	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	3/31/2000	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	6/11/2000	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	7/28/2001	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	10/27/2002	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	7/9/2003	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	7/31/2003	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	8/1/2003	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	11/15/2003	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	7/2/2004	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	7/3/2004	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	7/31/2006	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	8/1/2006	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	8/4/2006	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	9/3/2007	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	8/9/2008	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	8/12/2009	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	10/30/2012	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	11/22/2012	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	8/6/2013	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	8/7/2013	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	8/9/2013	2.7	2.70	0.65	1.76	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4854005
5592050	7/27/1990	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	6/25/1991	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	11/25/1991	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	12/19/1991	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	8/30/1995	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	11/24/1995	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	12/1/1995	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	12/2/1995	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	8/3/1996	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	7/10/1997	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	12/20/1997	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	11/17/1998	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/4/1998	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	12/6/1998	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	2/24/2000	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	2/26/2000	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	5/9/2000	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	7/21/2001	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	7/22/2001	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	1/9/2003	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	7/6/2003	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	11/9/2003	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	11/11/2003	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	7/22/2004	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	7/27/2006	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	7/29/2006	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	7/30/2006	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	8/2/2006	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	8/3/2006	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	9/17/2007	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	11/22/2007	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	11/23/2007	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	8/30/2008	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	8/17/2010	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	8/24/2010	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	10/8/2012	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	12/6/2012	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	12/25/2013	2.6	2.60	0.65	1.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211.3563116
5592050	1/6/1990	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	1/20/1990	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	1/21/1990	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	8/9/1992	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	7/27/1994	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	8/17/1994	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	8/31/1995	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	12/3/1995	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	12/13/1995	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	12/18/1996	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	12/8/1997	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	12/9/1997	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	8/21/1998	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	11/18/1998	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	11/26/1998	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	12/14/1999	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	2/21/2000	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	4/1/2000	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/2/2000	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	4/3/2000	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	4/8/2000	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	9/12/2003	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	11/6/2003	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	7/17/2005	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	7/28/2006	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	9/1/2006	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	9/12/2006	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	8/22/2007	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	8/24/2008	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	8/29/2008	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	8/13/2009	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	8/22/2009	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	7/29/2011	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	8/3/2011	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	11/10/2011	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	6/18/2012	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	11/23/2012	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	11/24/2012	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	8/10/2013	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	1/25/2014	2.5	2.50	0.65	1.63	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	203.2272227
5592050	7/2/1991	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	10/26/1991	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	10/30/1991	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	11/26/1991	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	7/12/1992	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	12/4/1995	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	11/19/1998	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	11/23/1998	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	7/15/1999	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	4/30/2000	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	7/23/2001	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	7/30/2002	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	10/29/2002	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	11/2/2002	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	12/23/2002	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	2/5/2003	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	4/25/2003	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	5/1/2003	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	7/7/2003	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	7/15/2003	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	9/29/2003	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	11/12/2003	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/23/2004	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	8/1/2004	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	9/2/2006	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	9/2/2007	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	10/19/2007	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	7/14/2012	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	8/13/2013	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	8/3/2015	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	8/5/2015	2.4	2.40	0.65	1.57	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	195.0981337
5592050	1/10/1990	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	1/17/1990	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	10/4/1990	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	10/5/1991	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	6/21/1992	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	7/28/1994	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	11/7/1995	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	11/28/1995	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	11/30/1995	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	12/7/1995	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	8/4/1996	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	8/23/1998	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	11/2/1998	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	11/20/1998	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	11/27/1998	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	12/5/1998	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	1/4/2000	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	2/22/2000	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	2/25/2000	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	2/29/2000	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	3/14/2000	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	5/1/2000	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	5/2/2000	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	5/13/2000	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	9/16/2000	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	9/10/2001	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	2/2/2003	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	7/8/2003	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	10/19/2003	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	11/10/2003	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	7/25/2004	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	12/27/2005	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	9/5/2007	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	10/12/2009	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	10/6/2012	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/3/2012	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	12/3/2013	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	12/26/2013	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	1/26/2014	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	1/30/2014	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	8/4/2015	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	8/12/2015	2.3	2.30	0.65	1.50	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	186.9690448
5592050	11/3/1991	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	7/18/1992	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	7/29/1994	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	8/18/1994	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	11/3/1994	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	11/29/1995	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	12/6/1995	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	12/8/1995	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	8/5/1996	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	12/19/1996	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	7/11/1997	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	8/22/1998	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	11/21/1998	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	11/22/1998	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	11/24/1998	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	11/28/1998	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	3/13/2000	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	4/4/2000	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	4/19/2000	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	9/1/2000	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	9/17/2000	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	10/3/2000	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	7/29/2001	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	4/23/2003	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	4/26/2003	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	9/13/2003	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	9/20/2003	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	11/13/2003	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	8/2/2004	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	6/27/2005	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	11/30/2005	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	9/18/2007	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	10/17/2007	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	11/21/2007	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	8/28/2008	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	8/14/2009	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	8/4/2011	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/16/2011	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	6/19/2012	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	10/31/2012	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	8/14/2013	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	8/22/2013	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	1/27/2014	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	1/28/2014	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	7/24/2014	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	9/6/2014	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	9/25/2014	2.2	2.20	0.65	1.44	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178.8399559
5592050	1/18/1990	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	7/28/1990	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	6/26/1991	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	7/13/1991	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	6/22/1992	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	8/10/1992	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	7/30/1994	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	12/5/1995	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	12/22/1996	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	8/24/1998	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	11/9/1998	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	11/29/1998	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	12/1/1998	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	2/23/2000	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	3/1/2000	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	3/15/2000	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	4/9/2000	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	5/3/2000	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	10/28/2002	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	11/10/2002	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	11/11/2002	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	7/26/2004	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	7/8/2005	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	10/18/2006	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	8/21/2007	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	8/28/2007	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	9/1/2007	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	8/25/2008	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	8/18/2009	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	8/19/2009	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	8/18/2010	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	8/10/2011	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	9/14/2011	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	10/17/2012	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/7/2012	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	11/11/2012	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	8/11/2013	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	8/12/2013	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	8/16/2013	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	1/29/2014	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	9/3/2014	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	8/13/2015	2.1	2.10	0.65	1.37	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170.710867
5592050	1/5/1990	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	1/11/1990	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	1/22/1990	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	11/18/1991	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	7/31/1994	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	9/1/1995	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	11/6/1996	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	11/30/1998	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	7/16/1999	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	11/2/1999	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	4/5/2000	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	4/6/2000	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	4/10/2000	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	5/10/2000	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	5/25/2000	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	9/15/2000	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	9/21/2002	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	12/24/2002	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	1/10/2003	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	4/24/2003	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	4/29/2003	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	7/16/2003	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	7/17/2003	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	55	mg/L	23.1	28.3	387.0994717	162.5817781
5592050	8/31/2003	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	9/30/2003	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	10/26/2003	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	11/5/2003	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	11/14/2003	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	10/15/2004	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	7/13/2005	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	9/13/2006	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	8/23/2009	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	8/5/2011	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	8/9/2011	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	8/11/2011	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	8/16/2011	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/11/2011	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	6/20/2012	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	11/2/2012	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	11/3/2012	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	11/25/2012	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	11/26/2012	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	12/2/2012	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	12/4/2012	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	12/5/2012	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	12/8/2012	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	8/15/2013	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	8/17/2013	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	12/27/2013	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	1/8/2014	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	7/11/2014	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	8/11/2014	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	9/24/2014	2	2.00	0.65	1.31	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162.5817781
5592050	7/29/1990	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	7/3/1991	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	8/8/1991	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	7/11/1992	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	10/28/1995	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	8/6/1996	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	11/9/1996	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	12/20/1996	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	12/21/1996	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	7/17/1999	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	3/4/2000	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	3/12/2000	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	3/16/2000	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	4/11/2000	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	5/4/2000	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	4/27/2003	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	7/30/2003	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	9/14/2003	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	10/20/2003	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	7/24/2004	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	6/28/2005	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	7/12/2005	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	12/26/2005	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	11/14/2007	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	8/10/2008	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	8/15/2009	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	8/12/2011	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/13/2011	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	10/18/2011	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	11/5/2011	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	11/12/2011	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	11/17/2011	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	9/1/2012	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	10/7/2012	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	11/1/2012	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	11/4/2012	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	11/27/2012	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	8/18/2013	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	8/19/2013	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	7/26/2014	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	8/14/2015	1.9	1.90	0.65	1.24	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.4526892
5592050	6/27/1991	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	6/23/1992	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	8/1/1994	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	8/19/1994	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	9/2/1995	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	10/31/1995	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	12/9/1995	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	12/12/1995	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	8/20/1997	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	7/18/1999	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	3/2/2000	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	3/3/2000	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	3/5/2000	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	4/12/2000	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	4/15/2000	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	4/16/2000	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	5/5/2000	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	5/26/2000	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	7/31/2002	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	12/25/2002	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	4/28/2003	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	4/30/2003	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	7/29/2003	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	10/28/2003	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	7/14/2005	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	7/19/2005	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	11/20/2007	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	8/26/2008	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	8/27/2008	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	8/17/2009	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/19/2010	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	8/25/2010	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	8/6/2011	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	11/13/2011	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	11/21/2011	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	6/21/2012	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	11/6/2012	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	11/8/2012	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	11/9/2012	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	11/10/2012	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	11/28/2012	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	12/13/2013	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	12/28/2013	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	7/25/2014	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	7/27/2014	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	9/26/2014	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	8/19/2015	1.8	1.80	0.65	1.18	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	146.3236003
5592050	1/19/1990	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	1/23/1990	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	1/24/1990	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	7/1/1991	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	11/4/1991	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	6/24/1992	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	6/25/1992	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	7/13/1992	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	8/2/1994	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	8/29/1994	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	9/3/1995	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	9/4/1995	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	9/10/1995	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	8/7/1996	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	11/24/1996	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	7/12/1997	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	8/25/1998	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	8/27/1998	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	4/13/2000	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	4/14/2000	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	5/6/2000	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	7/30/2001	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	8/2/2001	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	11/3/2002	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	11/9/2002	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	9/15/2003	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	10/1/2003	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/3/2004	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	6/29/2005	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	7/15/2005	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	7/18/2005	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	11/27/2005	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	12/1/2005	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	12/15/2005	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	8/31/2007	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	9/19/2007	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	11/13/2007	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	11/15/2007	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	11/17/2007	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	8/16/2009	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	10/13/2009	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	8/7/2011	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	9/4/2012	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	10/15/2012	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	11/5/2012	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	11/29/2012	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	11/30/2012	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	12/1/2012	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	8/20/2013	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	8/21/2013	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	11/19/2013	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	8/10/2014	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	8/20/2015	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	11/16/2015	1.7	1.70	0.65	1.11	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138.1945114
5592050	1/25/1990	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	1/26/1990	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	2/1/1990	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	7/30/1990	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	7/31/1990	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	8/22/1990	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	10/27/1991	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	6/26/1992	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	8/11/1992	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	8/3/1994	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	10/31/1994	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	9/5/1995	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	9/6/1995	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	9/7/1995	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	9/24/1995	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	10/3/1995	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	10/27/1995	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/19/1997	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	7/19/1999	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	3/6/2000	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	3/7/2000	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	3/17/2000	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	5/11/2000	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	5/14/2000	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	9/2/2000	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	9/19/2001	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	8/1/2002	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	10/24/2002	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	11/4/2002	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	11/5/2002	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	11/7/2002	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	11/8/2002	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	11/12/2002	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	12/26/2002	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	12/29/2002	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	2/6/2003	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	7/21/2003	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	9/21/2003	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	10/21/2003	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	10/27/2003	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	7/27/2004	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	10/16/2004	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	6/30/2005	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	7/9/2005	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	11/1/2005	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	12/16/2005	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	12/25/2005	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	10/17/2006	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	11/16/2007	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	11/18/2007	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	8/8/2011	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	11/18/2011	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	11/20/2011	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	10/16/2012	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	12/2/2013	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	12/19/2013	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	12/29/2013	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	8/15/2015	1.6	1.60	0.65	1.04	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130.0654225
5592050	1/4/1990	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	1/12/1990	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	1/27/1990	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/4/1990	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	8/19/1990	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	8/23/1990	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	7/19/1992	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	7/23/1992	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	8/4/1994	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	10/18/1994	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	9/8/1995	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	9/9/1995	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	9/11/1995	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	9/13/1995	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	9/17/1995	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	9/25/1995	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	10/4/1995	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	10/29/1995	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	12/10/1995	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	12/11/1995	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	8/23/1997	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	8/24/1997	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	9/12/1997	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	8/26/1998	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	9/1/1998	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	9/2/1998	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	9/3/1998	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	11/5/1998	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	12/15/1999	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	3/8/2000	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	3/11/2000	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	3/18/2000	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	5/12/2000	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	8/4/2001	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	9/18/2001	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	8/2/2002	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	8/19/2002	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	11/13/2002	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	11/14/2002	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	12/27/2002	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	12/28/2002	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	1/11/2003	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	2/14/2003	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	9/16/2003	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	9/19/2003	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	10/14/2004	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	7/20/2005	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/15/2005	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	11/16/2005	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	12/2/2005	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	9/14/2006	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	8/29/2007	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	10/27/2007	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	10/31/2007	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	11/9/2007	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	11/12/2007	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	11/19/2007	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	8/11/2008	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	8/24/2009	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	8/20/2010	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	8/14/2011	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	8/17/2011	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	9/15/2011	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	11/19/2011	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	6/22/2012	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	9/9/2012	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	12/7/2012	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	10/31/2013	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	11/18/2013	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	12/1/2013	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	12/16/2013	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	12/30/2013	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	10/1/2014	1.5	1.50	0.65	0.98	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.9363336
5592050	1/16/1990	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	8/1/1990	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	8/5/1990	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	8/15/1990	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	6/28/1991	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	11/5/1991	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	8/5/1994	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	8/20/1994	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	9/7/1994	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	10/17/1994	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	9/12/1995	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	9/14/1995	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	9/15/1995	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	9/16/1995	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	9/18/1995	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	9/19/1995	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	9/20/1995	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	9/23/1995	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	9/26/1995	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	10/21/1995	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	11/8/1995	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	8/8/1996	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	7/13/1997	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	8/21/1997	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	8/30/1998	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	8/31/1998	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	7/20/1999	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	3/9/2000	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	3/10/2000	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	10/11/2001	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	11/6/2002	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	2/10/2003	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	2/11/2003	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	9/25/2003	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	10/2/2003	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	10/22/2003	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	10/29/2003	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	7/28/2004	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	10/17/2004	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	7/1/2005	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	11/17/2005	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	12/17/2005	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	12/24/2005	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	9/18/2006	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	8/30/2007	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	9/20/2007	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	10/26/2007	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	10/28/2007	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	10/29/2007	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	10/30/2007	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	8/12/2008	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	8/13/2008	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	9/26/2011	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	6/23/2012	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	10/14/2012	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	11/20/2013	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	11/30/2013	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	12/31/2013	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	8/16/2015	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	8/17/2015	1.4	1.40	0.65	0.91	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.8072447
5592050	6/27/1992	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	8/12/1992	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/6/1994	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	10/20/1994	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	9/21/1995	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	9/22/1995	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	9/27/1995	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	10/5/1995	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	7/14/1997	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	8/29/1998	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	9/4/1998	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	11/6/1998	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	11/8/1998	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	2/10/2000	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	2/11/2000	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	7/31/2001	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	8/3/2002	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	9/22/2002	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	11/15/2002	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	11/29/2002	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	12/1/2002	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	12/2/2002	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	2/12/2003	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	2/13/2003	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	8/4/2003	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	9/17/2003	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	9/22/2003	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	10/23/2003	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	7/29/2004	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	8/4/2004	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	8/29/2004	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	7/2/2005	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	7/10/2005	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	11/6/2005	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	11/18/2005	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	11/20/2005	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	11/21/2005	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	11/22/2005	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	11/23/2005	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	11/24/2005	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	11/25/2005	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	11/26/2005	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	12/14/2005	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	10/19/2006	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	9/21/2007	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	11/1/2007	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/5/2007	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	11/10/2007	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	11/11/2007	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	8/25/2009	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	10/6/2009	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	10/7/2009	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	10/19/2011	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	6/24/2012	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	7/15/2012	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	9/26/2012	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	10/5/2012	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	10/9/2012	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	1/1/2014	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	9/27/2014	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	9/30/2014	1.3	1.30	0.65	0.85	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.6781558
5592050	1/13/1990	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	1/28/1990	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	8/2/1990	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	8/3/1990	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	8/20/1990	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	6/29/1991	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	11/16/1991	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	8/7/1994	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	8/31/1994	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	9/28/1995	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	9/29/1995	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	9/30/1995	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	10/1/1995	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	10/2/1995	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	10/30/1995	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	7/23/1997	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	8/22/1997	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	8/28/1998	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	10/30/1998	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	11/7/1998	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	7/21/1999	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	7/27/1999	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	11/3/1999	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	5/15/2000	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	5/16/2000	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	9/14/2000	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	9/11/2001	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	8/4/2002	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	9/19/2002	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/19/2002	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	11/16/2002	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	11/26/2002	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	11/27/2002	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	11/28/2002	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	11/30/2002	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	12/3/2002	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	12/4/2002	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	2/1/2003	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	2/9/2003	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	7/22/2003	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	9/18/2003	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	10/3/2003	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	10/24/2003	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	10/30/2003	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	8/28/2004	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	8/30/2004	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	7/3/2005	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	7/4/2005	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	7/21/2005	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	11/7/2005	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	11/8/2005	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	11/10/2005	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	11/14/2005	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	11/19/2005	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	12/3/2005	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	12/18/2005	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	12/23/2005	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	9/22/2007	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	10/25/2007	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	11/2/2007	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	11/4/2007	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	11/8/2007	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	8/14/2008	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	8/26/2010	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	8/18/2011	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	10/13/2011	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	11/6/2011	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	11/21/2013	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	1/2/2014	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	1/3/2014	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	1/4/2014	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	7/28/2014	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	8/23/2015	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/25/2015	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	8/26/2015	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	11/15/2015	1.2	1.20	0.65	0.78	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97.54906687
5592050	1/29/1990	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	1/30/1990	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	1/31/1990	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	8/6/1990	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	8/18/1990	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	7/4/1991	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	10/29/1991	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	11/6/1991	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	11/15/1991	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	11/17/1991	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	7/24/1992	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	8/8/1994	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	10/29/1994	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	10/30/1994	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	8/9/1996	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	11/10/1996	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	7/15/1997	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	7/16/1997	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	7/17/1997	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	9/5/1998	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	10/29/1998	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	11/1/1998	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	7/28/1999	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	12/16/1999	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	1/5/2000	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	5/17/2000	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	5/18/2000	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	9/3/2000	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	9/13/2000	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	8/1/2001	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	9/20/2001	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	11/17/2002	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	11/25/2002	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	12/5/2002	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	12/6/2002	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	12/7/2002	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	12/17/2002	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	1/12/2003	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	1/13/2003	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	2/7/2003	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	2/8/2003	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/23/2003	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	7/27/2003	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	10/4/2003	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	10/25/2003	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	8/5/2004	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	7/11/2005	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	10/20/2005	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	11/9/2005	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	11/11/2005	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	11/12/2005	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	11/13/2005	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	12/4/2005	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	12/13/2005	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	12/19/2005	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	12/20/2005	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	12/22/2005	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	9/15/2006	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	9/23/2007	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	9/24/2007	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	10/23/2007	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	10/24/2007	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	11/3/2007	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	11/6/2007	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	8/15/2008	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	9/1/2010	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	9/9/2011	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	10/20/2011	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	10/10/2012	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	11/22/2013	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	12/18/2013	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	1/5/2014	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	1/6/2014	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	1/7/2014	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	8/12/2014	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	8/18/2015	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	8/21/2015	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	8/24/2015	1.1	1.10	0.65	0.72	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.41997797
5592050	1/3/1990	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	1/14/1990	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	1/15/1990	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	8/16/1990	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	8/24/1990	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	6/30/1991	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	11/7/1991	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/28/1992	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	8/13/1992	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	10/31/1992	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	8/9/1994	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	8/21/1994	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	10/28/1994	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	10/20/1995	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	10/26/1995	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	11/18/1996	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	7/24/1997	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	11/27/1997	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	9/6/1998	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	10/31/1998	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	7/22/1999	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	5/19/2000	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	8/5/2001	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	10/5/2001	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	8/5/2002	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	9/23/2002	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	10/12/2002	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	10/20/2002	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	10/23/2002	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	11/18/2002	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	11/22/2002	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	11/23/2002	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	11/24/2002	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	12/8/2002	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	12/9/2002	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	12/10/2002	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	12/16/2002	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	1/14/2003	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	9/23/2003	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	10/5/2003	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	12/21/2005	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	11/7/2007	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	8/16/2008	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	8/26/2009	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	8/15/2011	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	8/19/2011	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	9/16/2011	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	11/1/2013	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	11/23/2013	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	12/17/2013	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	7/29/2014	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/22/2015	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	8/27/2015	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	11/14/2015	1	1.00	0.65	0.65	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.29088906
5592050	7/5/1991	0.99	0.99	0.65	0.65	7880	82.3062%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80.47798017
5592050	11/14/1991	0.99	0.99	0.65	0.65	7880	82.3062%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80.47798017
5592050	8/28/1994	0.99	0.99	0.65	0.65	7880	82.3062%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80.47798017
5592050	8/10/1996	0.99	0.99	0.65	0.65	7880	82.3062%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80.47798017
5592050	7/25/2003	0.99	0.99	0.65	0.65	7880	82.3062%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80.47798017
5592050	8/6/2004	0.99	0.99	0.65	0.65	7880	82.3062%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80.47798017
5592050	7/22/2005	0.99	0.99	0.65	0.65	7880	82.3062%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80.47798017
5592050	10/20/2006	0.99	0.99	0.65	0.65	7880	82.3062%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80.47798017
5592050	8/17/2008	0.99	0.99	0.65	0.65	7880	82.3062%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80.47798017
5592050	7/18/1997	0.98	0.98	0.65	0.64	7889	82.4003%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	79.66507128
5592050	7/22/1997	0.98	0.98	0.65	0.64	7889	82.4003%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	79.66507128
5592050	8/20/2004	0.98	0.98	0.65	0.64	7889	82.4003%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	79.66507128
5592050	12/5/2005	0.98	0.98	0.65	0.64	7889	82.4003%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	79.66507128
5592050	8/29/2009	0.98	0.98	0.65	0.64	7889	82.4003%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	79.66507128
5592050	12/12/2013	0.98	0.98	0.65	0.64	7889	82.4003%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	79.66507128
5592050	10/25/1994	0.97	0.97	0.65	0.63	7895	82.4629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78.85216239
5592050	10/26/1994	0.97	0.97	0.65	0.63	7895	82.4629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78.85216239
5592050	10/27/1994	0.97	0.97	0.65	0.63	7895	82.4629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78.85216239
5592050	7/24/2003	0.97	0.97	0.65	0.63	7895	82.4629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78.85216239
5592050	8/18/2008	0.97	0.97	0.65	0.63	7895	82.4629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78.85216239
5592050	1/15/2003	0.96	0.96	0.65	0.63	7900	82.5151%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78.0392535
5592050	10/13/2004	0.96	0.96	0.65	0.63	7900	82.5151%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78.0392535
5592050	12/12/2005	0.96	0.96	0.65	0.63	7900	82.5151%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78.0392535
5592050	8/28/2009	0.96	0.96	0.65	0.63	7900	82.5151%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78.0392535
5592050	9/29/1991	0.95	0.95	0.65	0.62	7904	82.5569%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.22634461
5592050	10/28/1991	0.95	0.95	0.65	0.62	7904	82.5569%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.22634461
5592050	11/9/1995	0.95	0.95	0.65	0.62	7904	82.5569%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.22634461
5592050	11/4/1999	0.95	0.95	0.65	0.62	7904	82.5569%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.22634461
5592050	11/21/2002	0.95	0.95	0.65	0.62	7904	82.5569%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.22634461
5592050	12/15/2002	0.95	0.95	0.65	0.62	7904	82.5569%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.22634461
5592050	10/31/2003	0.95	0.95	0.65	0.62	7904	82.5569%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.22634461
5592050	8/9/2012	0.95	0.95	0.65	0.62	7904	82.5569%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.22634461
5592050	8/30/1990	0.94	0.94	0.65	0.61	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76.41343572
5592050	10/6/1995	0.94	0.94	0.65	0.61	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76.41343572
5592050	10/22/1995	0.94	0.94	0.65	0.61	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76.41343572
5592050	9/7/1998	0.94	0.94	0.65	0.61	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76.41343572
5592050	10/6/1998	0.94	0.94	0.65	0.61	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76.41343572
5592050	8/6/2002	0.94	0.94	0.65	0.61	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76.41343572
5592050	11/19/2002	0.94	0.94	0.65	0.61	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76.41343572
5592050	12/11/2002	0.94	0.94	0.65	0.61	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76.41343572
5592050	12/12/2002	0.94	0.94	0.65	0.61	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76.41343572

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	1/16/2003	0.94	0.94	0.65	0.61	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76.41343572
5592050	8/21/2008	0.94	0.94	0.65	0.61	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76.41343572
5592050	8/29/2014	0.94	0.94	0.65	0.61	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76.41343572
5592050	8/12/1990	0.93	0.93	0.65	0.61	7924	82.7658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	75.60052683
5592050	7/27/2005	0.93	0.93	0.65	0.61	7924	82.7658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	75.60052683
5592050	6/25/2012	0.93	0.93	0.65	0.61	7924	82.7658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	75.60052683
5592050	10/24/1994	0.92	0.92	0.65	0.60	7927	82.7972%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74.78761794
5592050	8/11/1996	0.92	0.92	0.65	0.60	7927	82.7972%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74.78761794
5592050	11/19/1996	0.92	0.92	0.65	0.60	7927	82.7972%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74.78761794
5592050	1/17/2003	0.92	0.92	0.65	0.60	7927	82.7972%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74.78761794
5592050	10/21/2005	0.92	0.92	0.65	0.60	7927	82.7972%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74.78761794
5592050	11/5/2005	0.92	0.92	0.65	0.60	7927	82.7972%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74.78761794
5592050	9/19/2006	0.92	0.92	0.65	0.60	7927	82.7972%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74.78761794
5592050	8/14/1992	0.91	0.91	0.65	0.59	7934	82.8703%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.97470905
5592050	11/10/1995	0.91	0.91	0.65	0.59	7934	82.8703%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.97470905
5592050	7/21/1997	0.91	0.91	0.65	0.59	7934	82.8703%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.97470905
5592050	7/25/1997	0.91	0.91	0.65	0.59	7934	82.8703%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.97470905
5592050	5/20/2000	0.91	0.91	0.65	0.59	7934	82.8703%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.97470905
5592050	5/22/2000	0.91	0.91	0.65	0.59	7934	82.8703%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.97470905
5592050	7/26/2003	0.91	0.91	0.65	0.59	7934	82.8703%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.97470905
5592050	6/29/1992	0.9	0.90	0.65	0.59	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.16180016
5592050	8/10/1994	0.9	0.90	0.65	0.59	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.16180016
5592050	8/12/1996	0.9	0.90	0.65	0.59	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.16180016
5592050	12/17/1999	0.9	0.90	0.65	0.59	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.16180016
5592050	10/10/2001	0.9	0.90	0.65	0.59	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.16180016
5592050	8/15/2002	0.9	0.90	0.65	0.59	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.16180016
5592050	10/21/2002	0.9	0.90	0.65	0.59	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.16180016
5592050	11/20/2002	0.9	0.90	0.65	0.59	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.16180016
5592050	9/24/2003	0.9	0.90	0.65	0.59	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.16180016
5592050	10/6/2003	0.9	0.90	0.65	0.59	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.16180016
5592050	12/6/2005	0.9	0.90	0.65	0.59	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.16180016
5592050	10/20/2007	0.9	0.90	0.65	0.59	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.16180016
5592050	11/24/2013	0.9	0.90	0.65	0.59	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.16180016
5592050	7/6/1991	0.89	0.89	0.65	0.58	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.34889126
5592050	10/25/1991	0.89	0.89	0.65	0.58	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.34889126
5592050	9/8/1998	0.89	0.89	0.65	0.58	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.34889126
5592050	9/9/1998	0.89	0.89	0.65	0.58	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.34889126
5592050	7/23/1999	0.89	0.89	0.65	0.58	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.34889126
5592050	5/21/2000	0.89	0.89	0.65	0.58	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.34889126
5592050	9/4/2000	0.89	0.89	0.65	0.58	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.34889126
5592050	8/7/2004	0.89	0.89	0.65	0.58	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.34889126
5592050	11/2/2005	0.89	0.89	0.65	0.58	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.34889126
5592050	10/21/2006	0.89	0.89	0.65	0.58	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.34889126
5592050	11/4/2015	0.89	0.89	0.65	0.58	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.34889126

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/17/1996	0.88	0.88	0.65	0.57	7965	83.1941%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	71.53598237
5592050	11/20/1996	0.88	0.88	0.65	0.57	7965	83.1941%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	71.53598237
5592050	12/13/2002	0.88	0.88	0.65	0.57	7965	83.1941%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	71.53598237
5592050	12/14/2002	0.88	0.88	0.65	0.57	7965	83.1941%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	71.53598237
5592050	8/27/2009	0.88	0.88	0.65	0.57	7965	83.1941%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	71.53598237
5592050	12/11/2013	0.88	0.88	0.65	0.57	7965	83.1941%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	71.53598237
5592050	8/3/2014	0.88	0.88	0.65	0.57	7965	83.1941%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	71.53598237
5592050	9/29/2014	0.88	0.88	0.65	0.57	7965	83.1941%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	71.53598237
5592050	11/8/1991	0.87	0.87	0.65	0.57	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.72307348
5592050	11/13/1991	0.87	0.87	0.65	0.57	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.72307348
5592050	8/30/1994	0.87	0.87	0.65	0.57	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.72307348
5592050	11/21/1996	0.87	0.87	0.65	0.57	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.72307348
5592050	7/19/1997	0.87	0.87	0.65	0.57	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.72307348
5592050	8/25/1997	0.87	0.87	0.65	0.57	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.72307348
5592050	10/28/1998	0.87	0.87	0.65	0.57	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.72307348
5592050	10/13/2002	0.87	0.87	0.65	0.57	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.72307348
5592050	8/20/2008	0.87	0.87	0.65	0.57	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.72307348
5592050	8/23/2011	0.87	0.87	0.65	0.57	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.72307348
5592050	12/10/2013	0.87	0.87	0.65	0.57	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.72307348
5592050	8/7/1990	0.86	0.86	0.65	0.56	7984	83.3925%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.91016459
5592050	10/24/1995	0.86	0.86	0.65	0.56	7984	83.3925%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.91016459
5592050	10/25/1995	0.86	0.86	0.65	0.56	7984	83.3925%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.91016459
5592050	10/22/2002	0.86	0.86	0.65	0.56	7984	83.3925%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.91016459
5592050	1/18/2003	0.86	0.86	0.65	0.56	7984	83.3925%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.91016459
5592050	7/23/2005	0.86	0.86	0.65	0.56	7984	83.3925%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.91016459
5592050	10/31/2005	0.86	0.86	0.65	0.56	7984	83.3925%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.91016459
5592050	12/11/2005	0.86	0.86	0.65	0.56	7984	83.3925%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.91016459
5592050	8/19/2008	0.86	0.86	0.65	0.56	7984	83.3925%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.91016459
5592050	8/17/1990	0.85	0.85	0.65	0.55	7993	83.4865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.0972557
5592050	7/14/1991	0.85	0.85	0.65	0.55	7993	83.4865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.0972557
5592050	11/12/1991	0.85	0.85	0.65	0.55	7993	83.4865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.0972557
5592050	11/6/1995	0.85	0.85	0.65	0.55	7993	83.4865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.0972557
5592050	10/6/2001	0.85	0.85	0.65	0.55	7993	83.4865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.0972557
5592050	9/24/2002	0.85	0.85	0.65	0.55	7993	83.4865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.0972557
5592050	11/1/2003	0.85	0.85	0.65	0.55	7993	83.4865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.0972557
5592050	8/31/2004	0.85	0.85	0.65	0.55	7993	83.4865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.0972557
5592050	8/15/2005	0.85	0.85	0.65	0.55	7993	83.4865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.0972557
5592050	12/7/2005	0.85	0.85	0.65	0.55	7993	83.4865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.0972557
5592050	10/16/1992	0.84	0.84	0.65	0.55	8003	83.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68.28434681
5592050	11/22/1996	0.84	0.84	0.65	0.55	8003	83.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68.28434681
5592050	10/11/2002	0.84	0.84	0.65	0.55	8003	83.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68.28434681
5592050	10/15/2002	0.84	0.84	0.65	0.55	8003	83.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68.28434681
5592050	8/8/1990	0.83	0.83	0.65	0.54	8007	83.6328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67.47143792
5592050	9/1/1994	0.83	0.83	0.65	0.54	8007	83.6328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67.47143792

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/11/1996	0.83	0.83	0.65	0.54	8007	83.6328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67.47143792
5592050	12/8/2005	0.83	0.83	0.65	0.54	8007	83.6328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67.47143792
5592050	12/10/2005	0.83	0.83	0.65	0.54	8007	83.6328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67.47143792
5592050	10/13/2012	0.83	0.83	0.65	0.54	8007	83.6328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67.47143792
5592050	11/2/2013	0.83	0.83	0.65	0.54	8007	83.6328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67.47143792
5592050	7/11/1991	0.82	0.82	0.65	0.54	8014	83.7059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	66.65852903
5592050	7/29/1999	0.82	0.82	0.65	0.54	8014	83.7059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	66.65852903
5592050	10/14/2002	0.82	0.82	0.65	0.54	8014	83.7059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	66.65852903
5592050	1/19/2003	0.82	0.82	0.65	0.54	8014	83.7059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	66.65852903
5592050	8/8/2004	0.82	0.82	0.65	0.54	8014	83.7059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	66.65852903
5592050	12/9/2005	0.82	0.82	0.65	0.54	8014	83.7059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	66.65852903
5592050	9/25/2007	0.82	0.82	0.65	0.54	8014	83.7059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	66.65852903
5592050	9/28/2014	0.82	0.82	0.65	0.54	8014	83.7059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	66.65852903
5592050	9/8/1994	0.81	0.81	0.65	0.53	8022	83.7894%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.84562014
5592050	8/13/1996	0.81	0.81	0.65	0.53	8022	83.7894%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.84562014
5592050	11/23/1996	0.81	0.81	0.65	0.53	8022	83.7894%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.84562014
5592050	8/6/2001	0.81	0.81	0.65	0.53	8022	83.7894%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.84562014
5592050	8/24/2001	0.81	0.81	0.65	0.53	8022	83.7894%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.84562014
5592050	11/29/2013	0.81	0.81	0.65	0.53	8022	83.7894%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.84562014
5592050	9/9/2015	0.81	0.81	0.65	0.53	8022	83.7894%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.84562014
5592050	8/11/1994	0.8	0.80	0.65	0.52	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.03271125
5592050	8/22/1994	0.8	0.80	0.65	0.52	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.03271125
5592050	10/9/1994	0.8	0.80	0.65	0.52	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.03271125
5592050	9/13/1997	0.8	0.80	0.65	0.52	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.03271125
5592050	11/5/1999	0.8	0.80	0.65	0.52	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.03271125
5592050	12/18/1999	0.8	0.80	0.65	0.52	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.03271125
5592050	9/12/2001	0.8	0.80	0.65	0.52	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.03271125
5592050	9/21/2001	0.8	0.80	0.65	0.52	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.03271125
5592050	8/18/2002	0.8	0.80	0.65	0.52	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.03271125
5592050	8/20/2002	0.8	0.80	0.65	0.52	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.03271125
5592050	1/20/2003	0.8	0.80	0.65	0.52	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.03271125
5592050	1/31/2003	0.8	0.80	0.65	0.52	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.03271125
5592050	10/7/2003	0.8	0.80	0.65	0.52	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.03271125
5592050	11/4/2005	0.8	0.80	0.65	0.52	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.03271125
5592050	9/16/2006	0.8	0.80	0.65	0.52	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.03271125
5592050	10/22/2006	0.8	0.80	0.65	0.52	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.03271125
5592050	8/20/2011	0.8	0.80	0.65	0.52	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.03271125
5592050	11/25/2013	0.8	0.80	0.65	0.52	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.03271125
5592050	10/7/2002	0.79	0.79	0.65	0.52	8047	84.0506%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.21980236
5592050	8/22/2014	0.79	0.79	0.65	0.52	8047	84.0506%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.21980236
5592050	10/24/1991	0.78	0.78	0.65	0.51	8049	84.0714%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.40689347
5592050	6/30/1992	0.78	0.78	0.65	0.51	8049	84.0714%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.40689347
5592050	10/21/1994	0.78	0.78	0.65	0.51	8049	84.0714%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.40689347
5592050	7/20/1997	0.78	0.78	0.65	0.51	8049	84.0714%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.40689347

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/26/1997	0.78	0.78	0.65	0.51	8049	84.0714%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.40689347
5592050	10/17/2002	0.78	0.78	0.65	0.51	8049	84.0714%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.40689347
5592050	7/24/2005	0.78	0.78	0.65	0.51	8049	84.0714%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.40689347
5592050	8/30/2009	0.78	0.78	0.65	0.51	8049	84.0714%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.40689347
5592050	8/9/1990	0.77	0.77	0.65	0.50	8057	84.1550%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	62.59398458
5592050	8/29/1990	0.77	0.77	0.65	0.50	8057	84.1550%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	62.59398458
5592050	11/4/1995	0.77	0.77	0.65	0.50	8057	84.1550%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	62.59398458
5592050	11/3/2005	0.77	0.77	0.65	0.50	8057	84.1550%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	62.59398458
5592050	12/4/2013	0.77	0.77	0.65	0.50	8057	84.1550%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	62.59398458
5592050	10/3/1990	0.76	0.76	0.65	0.50	8062	84.2072%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61.78107569
5592050	11/11/1991	0.76	0.76	0.65	0.50	8062	84.2072%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61.78107569
5592050	8/15/1992	0.76	0.76	0.65	0.50	8062	84.2072%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61.78107569
5592050	10/23/1995	0.76	0.76	0.65	0.50	8062	84.2072%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61.78107569
5592050	8/14/1996	0.76	0.76	0.65	0.50	8062	84.2072%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61.78107569
5592050	1/21/2003	0.76	0.76	0.65	0.50	8062	84.2072%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61.78107569
5592050	8/11/1990	0.75	0.75	0.65	0.49	8068	84.2699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.9681668
5592050	11/9/1991	0.75	0.75	0.65	0.49	8068	84.2699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.9681668
5592050	11/10/1991	0.75	0.75	0.65	0.49	8068	84.2699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.9681668
5592050	10/22/1994	0.75	0.75	0.65	0.49	8068	84.2699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.9681668
5592050	10/23/2006	0.75	0.75	0.65	0.49	8068	84.2699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.9681668
5592050	6/26/2012	0.75	0.75	0.65	0.49	8068	84.2699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.9681668
5592050	8/16/2012	0.75	0.75	0.65	0.49	8068	84.2699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.9681668
5592050	11/28/2013	0.75	0.75	0.65	0.49	8068	84.2699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.9681668
5592050	8/5/1991	0.74	0.74	0.65	0.48	8076	84.3535%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.15525791
5592050	9/13/1998	0.74	0.74	0.65	0.48	8076	84.3535%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.15525791
5592050	9/17/1998	0.74	0.74	0.65	0.48	8076	84.3535%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.15525791
5592050	9/25/2002	0.74	0.74	0.65	0.48	8076	84.3535%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.15525791
5592050	10/16/2002	0.74	0.74	0.65	0.48	8076	84.3535%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.15525791
5592050	10/18/2002	0.74	0.74	0.65	0.48	8076	84.3535%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.15525791
5592050	8/9/2004	0.74	0.74	0.65	0.48	8076	84.3535%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.15525791
5592050	8/28/2010	0.74	0.74	0.65	0.48	8076	84.3535%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.15525791
5592050	10/12/2012	0.74	0.74	0.65	0.48	8076	84.3535%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.15525791
5592050	10/23/1996	0.73	0.73	0.65	0.48	8085	84.4475%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.34234901
5592050	11/6/1997	0.73	0.73	0.65	0.48	8085	84.4475%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.34234901
5592050	1/10/2000	0.73	0.73	0.65	0.48	8085	84.4475%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.34234901
5592050	8/25/2004	0.73	0.73	0.65	0.48	8085	84.4475%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.34234901
5592050	9/6/2009	0.73	0.73	0.65	0.48	8085	84.4475%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.34234901
5592050	8/27/2010	0.73	0.73	0.65	0.48	8085	84.4475%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.34234901
5592050	10/17/2011	0.73	0.73	0.65	0.48	8085	84.4475%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.34234901
5592050	8/10/1990	0.72	0.72	0.65	0.47	8092	84.5206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.52944012
5592050	8/16/1992	0.72	0.72	0.65	0.47	8092	84.5206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.52944012
5592050	9/12/1998	0.72	0.72	0.65	0.47	8092	84.5206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.52944012
5592050	8/7/2001	0.72	0.72	0.65	0.47	8092	84.5206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.52944012
5592050	9/26/2007	0.72	0.72	0.65	0.47	8092	84.5206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.52944012

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/30/2010	0.72	0.72	0.65	0.47	8092	84.5206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.52944012
5592050	8/26/2012	0.72	0.72	0.65	0.47	8092	84.5206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.52944012
5592050	10/23/1994	0.71	0.71	0.65	0.46	8099	84.5937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	57.71653123
5592050	9/10/1998	0.71	0.71	0.65	0.46	8099	84.5937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	57.71653123
5592050	7/24/1999	0.71	0.71	0.65	0.46	8099	84.5937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	57.71653123
5592050	2/9/2000	0.71	0.71	0.65	0.46	8099	84.5937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	57.71653123
5592050	8/12/1994	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	8/23/1994	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	10/7/1995	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	11/5/1995	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	9/11/1998	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	9/14/1998	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	9/16/1998	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	10/27/1998	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	11/6/1999	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	11/24/1999	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	12/19/1999	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	1/3/2000	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	9/13/2001	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	10/7/2001	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	8/16/2002	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	9/26/2002	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	10/8/2002	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	1/22/2003	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	10/8/2003	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	8/10/2004	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	7/26/2005	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	7/28/2005	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	9/20/2006	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	9/27/2007	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	8/21/2011	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	9/20/2011	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	10/21/2011	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	11/3/2013	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	11/26/2013	0.7	0.70	0.65	0.46	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.90362234
5592050	10/23/1991	0.69	0.69	0.65	0.45	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.09071345
5592050	8/15/1996	0.69	0.69	0.65	0.45	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.09071345
5592050	11/12/1996	0.69	0.69	0.65	0.45	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.09071345
5592050	7/27/1997	0.69	0.69	0.65	0.45	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.09071345
5592050	10/7/1998	0.69	0.69	0.65	0.45	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.09071345
5592050	10/8/1998	0.69	0.69	0.65	0.45	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.09071345
5592050	1/6/2000	0.69	0.69	0.65	0.45	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.09071345
5592050	8/26/2001	0.69	0.69	0.65	0.45	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.09071345
5592050	8/7/2002	0.69	0.69	0.65	0.45	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.09071345

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/14/2005	0.69	0.69	0.65	0.45	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.09071345
5592050	9/17/2006	0.69	0.69	0.65	0.45	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.09071345
5592050	8/24/2011	0.69	0.69	0.65	0.45	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.09071345
5592050	11/13/2015	0.69	0.69	0.65	0.45	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.09071345
5592050	8/25/1990	0.68	0.68	0.65	0.44	8145	85.0742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.27780456
5592050	10/22/1996	0.68	0.68	0.65	0.44	8145	85.0742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.27780456
5592050	9/15/1998	0.68	0.68	0.65	0.44	8145	85.0742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.27780456
5592050	10/5/1998	0.68	0.68	0.65	0.44	8145	85.0742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.27780456
5592050	8/8/2001	0.68	0.68	0.65	0.44	8145	85.0742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.27780456
5592050	9/27/2002	0.68	0.68	0.65	0.44	8145	85.0742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.27780456
5592050	7/25/2005	0.68	0.68	0.65	0.44	8145	85.0742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.27780456
5592050	9/10/2012	0.68	0.68	0.65	0.44	8145	85.0742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.27780456
5592050	7/25/1999	0.67	0.67	0.65	0.44	8153	85.1577%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.46489567
5592050	2/12/2000	0.67	0.67	0.65	0.44	8153	85.1577%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.46489567
5592050	8/10/2001	0.67	0.67	0.65	0.44	8153	85.1577%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.46489567
5592050	8/18/2001	0.67	0.67	0.65	0.44	8153	85.1577%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.46489567
5592050	9/28/2002	0.67	0.67	0.65	0.44	8153	85.1577%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.46489567
5592050	10/24/2006	0.67	0.67	0.65	0.44	8153	85.1577%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.46489567
5592050	10/14/2011	0.67	0.67	0.65	0.44	8153	85.1577%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.46489567
5592050	8/25/2013	0.67	0.67	0.65	0.44	8153	85.1577%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.46489567
5592050	8/28/2015	0.67	0.67	0.65	0.44	8153	85.1577%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.46489567
5592050	7/1/1992	0.66	0.66	0.65	0.43	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53.65198678
5592050	8/17/1992	0.66	0.66	0.65	0.43	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53.65198678
5592050	9/2/1994	0.66	0.66	0.65	0.43	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53.65198678
5592050	9/9/1994	0.66	0.66	0.65	0.43	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53.65198678
5592050	11/5/1996	0.66	0.66	0.65	0.43	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53.65198678
5592050	9/25/1998	0.66	0.66	0.65	0.43	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53.65198678
5592050	1/9/2000	0.66	0.66	0.65	0.43	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53.65198678
5592050	8/9/2001	0.66	0.66	0.65	0.43	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53.65198678
5592050	8/23/2001	0.66	0.66	0.65	0.43	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53.65198678
5592050	9/29/2002	0.66	0.66	0.65	0.43	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53.65198678
5592050	10/10/2002	0.66	0.66	0.65	0.43	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53.65198678
5592050	8/31/2009	0.66	0.66	0.65	0.43	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53.65198678
5592050	10/11/2012	0.66	0.66	0.65	0.43	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53.65198678
5592050	12/9/2013	0.66	0.66	0.65	0.43	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53.65198678
5592050	9/10/1991	0.65	0.65	0.65	0.42	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.83907789
5592050	10/19/1991	0.65	0.65	0.65	0.42	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.83907789
5592050	7/2/1992	0.65	0.65	0.65	0.42	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.83907789
5592050	10/14/1995	0.65	0.65	0.65	0.42	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.83907789
5592050	11/13/1996	0.65	0.65	0.65	0.42	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.83907789
5592050	8/11/1997	0.65	0.65	0.65	0.42	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.83907789
5592050	7/30/1999	0.65	0.65	0.65	0.42	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.83907789
5592050	12/5/1999	0.65	0.65	0.65	0.42	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.83907789
5592050	8/19/2001	0.65	0.65	0.65	0.42	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.83907789

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	9/22/2001	0.65	0.65	0.65	0.42	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.83907789
5592050	9/30/2002	0.65	0.65	0.65	0.42	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.83907789
5592050	1/23/2003	0.65	0.65	0.65	0.42	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.83907789
5592050	10/9/2003	0.65	0.65	0.65	0.42	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.83907789
5592050	8/21/2004	0.65	0.65	0.65	0.42	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.83907789
5592050	8/24/2004	0.65	0.65	0.65	0.42	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.83907789
5592050	8/22/2011	0.65	0.65	0.65	0.42	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.83907789
5592050	9/25/2012	0.65	0.65	0.65	0.42	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.83907789
5592050	11/4/2013	0.65	0.65	0.65	0.42	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.83907789
5592050	11/14/1996	0.64	0.64	0.65	0.42	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.026169
5592050	11/15/1996	0.64	0.64	0.65	0.42	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.026169
5592050	9/21/1998	0.64	0.64	0.65	0.42	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.026169
5592050	9/29/1998	0.64	0.64	0.65	0.42	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.026169
5592050	8/13/1999	0.64	0.64	0.65	0.42	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.026169
5592050	2/8/2000	0.64	0.64	0.65	0.42	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.026169
5592050	8/11/2001	0.64	0.64	0.65	0.42	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.026169
5592050	8/5/2003	0.64	0.64	0.65	0.42	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.026169
5592050	8/11/2004	0.64	0.64	0.65	0.42	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.026169
5592050	8/12/2004	0.64	0.64	0.65	0.42	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.026169
5592050	9/1/2004	0.64	0.64	0.65	0.42	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.026169
5592050	9/16/2005	0.64	0.64	0.65	0.42	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.026169
5592050	9/7/2009	0.64	0.64	0.65	0.42	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.026169
5592050	9/19/1990	0.63	0.63	0.65	0.41	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.21326011
5592050	7/7/1991	0.63	0.63	0.65	0.41	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.21326011
5592050	10/8/1994	0.63	0.63	0.65	0.41	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.21326011
5592050	10/29/1996	0.63	0.63	0.65	0.41	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.21326011
5592050	10/30/1996	0.63	0.63	0.65	0.41	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.21326011
5592050	11/16/1996	0.63	0.63	0.65	0.41	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.21326011
5592050	7/26/1999	0.63	0.63	0.65	0.41	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.21326011
5592050	8/12/2001	0.63	0.63	0.65	0.41	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.21326011
5592050	8/25/2001	0.63	0.63	0.65	0.41	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.21326011
5592050	10/1/2002	0.63	0.63	0.65	0.41	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.21326011
5592050	1/30/2003	0.63	0.63	0.65	0.41	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.21326011
5592050	10/12/2004	0.63	0.63	0.65	0.41	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.21326011
5592050	8/6/2005	0.63	0.63	0.65	0.41	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.21326011
5592050	8/7/2005	0.63	0.63	0.65	0.41	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.21326011
5592050	9/25/2011	0.63	0.63	0.65	0.41	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.21326011
5592050	10/10/1994	0.62	0.62	0.65	0.40	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.40035122
5592050	10/8/1995	0.62	0.62	0.65	0.40	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.40035122
5592050	8/16/1996	0.62	0.62	0.65	0.40	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.40035122
5592050	10/26/1996	0.62	0.62	0.65	0.40	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.40035122
5592050	9/22/1998	0.62	0.62	0.65	0.40	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.40035122
5592050	9/30/1998	0.62	0.62	0.65	0.40	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.40035122
5592050	10/3/2002	0.62	0.62	0.65	0.40	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.40035122

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/4/2002	0.62	0.62	0.65	0.40	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.40035122
5592050	10/9/2002	0.62	0.62	0.65	0.40	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.40035122
5592050	10/25/2006	0.62	0.62	0.65	0.40	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.40035122
5592050	7/30/2014	0.62	0.62	0.65	0.40	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.40035122
5592050	11/3/1996	0.61	0.61	0.65	0.40	8233	85.9933%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.58744233
5592050	11/4/1996	0.61	0.61	0.65	0.40	8233	85.9933%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.58744233
5592050	1/24/2003	0.61	0.61	0.65	0.40	8233	85.9933%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.58744233
5592050	8/23/2004	0.61	0.61	0.65	0.40	8233	85.9933%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.58744233
5592050	8/16/2005	0.61	0.61	0.65	0.40	8233	85.9933%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.58744233
5592050	9/15/2005	0.61	0.61	0.65	0.40	8233	85.9933%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.58744233
5592050	10/10/2011	0.61	0.61	0.65	0.40	8233	85.9933%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.58744233
5592050	8/26/1990	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	8/18/1992	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	8/13/1994	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	8/24/1994	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	10/9/1995	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	8/18/1996	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	7/28/1997	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	11/28/1997	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	9/24/1998	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	8/8/1999	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	8/24/1999	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	11/7/1999	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	12/20/1999	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	9/14/2001	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	10/8/2001	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	8/8/2002	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	8/14/2002	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	8/17/2002	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	8/21/2002	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	10/2/2002	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	8/13/2004	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	7/29/2005	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	11/5/2013	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	11/17/2013	0.6	0.60	0.65	0.39	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48.77453344
5592050	9/21/1992	0.59	0.59	0.65	0.39	8264	86.3171%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.96162455
5592050	8/17/1996	0.59	0.59	0.65	0.39	8264	86.3171%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.96162455
5592050	2/13/2000	0.59	0.59	0.65	0.39	8264	86.3171%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.96162455
5592050	8/13/2001	0.59	0.59	0.65	0.39	8264	86.3171%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.96162455
5592050	8/5/2005	0.59	0.59	0.65	0.39	8264	86.3171%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.96162455
5592050	10/22/2011	0.59	0.59	0.65	0.39	8264	86.3171%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.96162455
5592050	8/27/1990	0.58	0.58	0.65	0.38	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.14871566
5592050	8/25/1994	0.58	0.58	0.65	0.38	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.14871566
5592050	11/2/1996	0.58	0.58	0.65	0.38	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.14871566

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/16/2001	0.58	0.58	0.65	0.38	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.14871566
5592050	1/29/2003	0.58	0.58	0.65	0.38	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.14871566
5592050	8/15/2004	0.58	0.58	0.65	0.38	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.14871566
5592050	7/30/2005	0.58	0.58	0.65	0.38	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.14871566
5592050	9/17/2005	0.58	0.58	0.65	0.38	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.14871566
5592050	10/22/2005	0.58	0.58	0.65	0.38	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.14871566
5592050	9/28/2007	0.58	0.58	0.65	0.38	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.14871566
5592050	9/1/2009	0.58	0.58	0.65	0.38	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.14871566
5592050	8/29/2010	0.58	0.58	0.65	0.38	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.14871566
5592050	10/12/2011	0.58	0.58	0.65	0.38	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.14871566
5592050	10/5/1990	0.57	0.57	0.65	0.37	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.33580676
5592050	10/27/1996	0.57	0.57	0.65	0.37	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.33580676
5592050	10/21/1998	0.57	0.57	0.65	0.37	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.33580676
5592050	1/8/2000	0.57	0.57	0.65	0.37	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.33580676
5592050	1/11/2000	0.57	0.57	0.65	0.37	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.33580676
5592050	8/27/2001	0.57	0.57	0.65	0.37	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.33580676
5592050	9/2/2004	0.57	0.57	0.65	0.37	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.33580676
5592050	10/10/2004	0.57	0.57	0.65	0.37	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.33580676
5592050	8/1/2005	0.57	0.57	0.65	0.37	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.33580676
5592050	10/2/2009	0.57	0.57	0.65	0.37	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.33580676
5592050	10/15/2011	0.57	0.57	0.65	0.37	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.33580676
5592050	9/7/2014	0.57	0.57	0.65	0.37	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.33580676
5592050	7/15/1991	0.56	0.56	0.65	0.37	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.52289787
5592050	9/23/1994	0.56	0.56	0.65	0.37	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.52289787
5592050	11/1/1996	0.56	0.56	0.65	0.37	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.52289787
5592050	9/18/1998	0.56	0.56	0.65	0.37	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.52289787
5592050	9/20/1998	0.56	0.56	0.65	0.37	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.52289787
5592050	9/28/1998	0.56	0.56	0.65	0.37	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.52289787
5592050	10/23/1998	0.56	0.56	0.65	0.37	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.52289787
5592050	1/7/2000	0.56	0.56	0.65	0.37	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.52289787
5592050	2/7/2000	0.56	0.56	0.65	0.37	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.52289787
5592050	1/25/2003	0.56	0.56	0.65	0.37	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.52289787
5592050	1/28/2003	0.56	0.56	0.65	0.37	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.52289787
5592050	8/14/2004	0.56	0.56	0.65	0.37	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.52289787
5592050	8/16/2004	0.56	0.56	0.65	0.37	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.52289787
5592050	8/17/2004	0.56	0.56	0.65	0.37	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.52289787
5592050	8/31/2010	0.56	0.56	0.65	0.37	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.52289787
5592050	9/28/2011	0.56	0.56	0.65	0.37	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.52289787
5592050	10/16/2011	0.56	0.56	0.65	0.37	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.52289787
5592050	11/6/2013	0.56	0.56	0.65	0.37	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.52289787
5592050	8/26/1994	0.55	0.55	0.65	0.36	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44.70998898
5592050	7/29/1997	0.55	0.55	0.65	0.36	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44.70998898
5592050	8/12/1997	0.55	0.55	0.65	0.36	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44.70998898
5592050	11/8/1999	0.55	0.55	0.65	0.36	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44.70998898

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/25/1999	0.55	0.55	0.65	0.36	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44.70998898
5592050	12/21/1999	0.55	0.55	0.65	0.36	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44.70998898
5592050	8/15/2001	0.55	0.55	0.65	0.36	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44.70998898
5592050	8/17/2001	0.55	0.55	0.65	0.36	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44.70998898
5592050	8/20/2001	0.55	0.55	0.65	0.36	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44.70998898
5592050	9/23/2001	0.55	0.55	0.65	0.36	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44.70998898
5592050	10/9/2001	0.55	0.55	0.65	0.36	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44.70998898
5592050	8/9/2002	0.55	0.55	0.65	0.36	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44.70998898
5592050	8/18/2004	0.55	0.55	0.65	0.36	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44.70998898
5592050	9/29/2005	0.55	0.55	0.65	0.36	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44.70998898
5592050	9/23/2006	0.55	0.55	0.65	0.36	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44.70998898
5592050	9/29/2007	0.55	0.55	0.65	0.36	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44.70998898
5592050	9/8/2009	0.55	0.55	0.65	0.36	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44.70998898
5592050	9/17/2011	0.55	0.55	0.65	0.36	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44.70998898
5592050	9/19/2011	0.55	0.55	0.65	0.36	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44.70998898
5592050	11/27/2013	0.55	0.55	0.65	0.36	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44.70998898
5592050	10/22/1991	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	8/27/1994	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	9/3/1994	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	8/19/1996	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	10/31/1996	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	9/23/1998	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	10/22/1998	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	7/31/1999	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	9/5/2000	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	9/9/2000	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	8/14/2001	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	10/6/2002	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	1/27/2003	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	8/22/2004	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	10/9/2004	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	7/31/2005	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	8/2/2005	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	8/8/2005	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	8/17/2005	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	8/19/2005	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	10/26/2005	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	10/27/2005	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	10/28/2005	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	10/30/2005	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	8/25/2012	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	8/29/2015	0.54	0.54	0.65	0.35	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.89708009
5592050	8/9/1991	0.53	0.53	0.65	0.35	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.0841712
5592050	10/15/1995	0.53	0.53	0.65	0.35	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.0841712

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/7/1997	0.53	0.53	0.65	0.35	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.0841712
5592050	10/26/1998	0.53	0.53	0.65	0.35	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.0841712
5592050	1/12/2000	0.53	0.53	0.65	0.35	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.0841712
5592050	8/3/2005	0.53	0.53	0.65	0.35	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.0841712
5592050	8/9/2005	0.53	0.53	0.65	0.35	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.0841712
5592050	9/30/2007	0.53	0.53	0.65	0.35	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.0841712
5592050	9/5/2009	0.53	0.53	0.65	0.35	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.0841712
5592050	8/27/2011	0.53	0.53	0.65	0.35	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.0841712
5592050	9/27/2011	0.53	0.53	0.65	0.35	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.0841712
5592050	6/27/2012	0.53	0.53	0.65	0.35	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.0841712
5592050	8/24/2012	0.53	0.53	0.65	0.35	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.0841712
5592050	8/28/2012	0.53	0.53	0.65	0.35	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.0841712
5592050	9/8/2015	0.53	0.53	0.65	0.35	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.0841712
5592050	10/4/1991	0.52	0.52	0.65	0.34	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.27126231
5592050	9/10/1994	0.52	0.52	0.65	0.34	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.27126231
5592050	9/25/1994	0.52	0.52	0.65	0.34	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.27126231
5592050	10/10/1995	0.52	0.52	0.65	0.34	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.27126231
5592050	10/24/1998	0.52	0.52	0.65	0.34	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.27126231
5592050	8/7/1999	0.52	0.52	0.65	0.34	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.27126231
5592050	8/22/2002	0.52	0.52	0.65	0.34	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.27126231
5592050	1/26/2003	0.52	0.52	0.65	0.34	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.27126231
5592050	9/3/2004	0.52	0.52	0.65	0.34	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.27126231
5592050	10/11/2004	0.52	0.52	0.65	0.34	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.27126231
5592050	8/4/2005	0.52	0.52	0.65	0.34	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.27126231
5592050	8/13/2005	0.52	0.52	0.65	0.34	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.27126231
5592050	8/18/2005	0.52	0.52	0.65	0.34	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.27126231
5592050	9/2/2009	0.52	0.52	0.65	0.34	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.27126231
5592050	9/4/1994	0.51	0.51	0.65	0.33	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.45835342
5592050	9/26/1996	0.51	0.51	0.65	0.33	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.45835342
5592050	9/26/1998	0.51	0.51	0.65	0.33	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.45835342
5592050	10/9/1998	0.51	0.51	0.65	0.33	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.45835342
5592050	8/20/1999	0.51	0.51	0.65	0.33	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.45835342
5592050	12/6/1999	0.51	0.51	0.65	0.33	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.45835342
5592050	12/10/1999	0.51	0.51	0.65	0.33	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.45835342
5592050	8/27/2005	0.51	0.51	0.65	0.33	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.45835342
5592050	9/11/2005	0.51	0.51	0.65	0.33	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.45835342
5592050	9/14/2005	0.51	0.51	0.65	0.33	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.45835342
5592050	10/23/2005	0.51	0.51	0.65	0.33	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.45835342
5592050	10/29/2005	0.51	0.51	0.65	0.33	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.45835342
5592050	11/1/2011	0.51	0.51	0.65	0.33	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.45835342
5592050	11/7/2013	0.51	0.51	0.65	0.33	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.45835342
5592050	12/5/2013	0.51	0.51	0.65	0.33	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.45835342
5592050	1/2/1990	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	10/18/1996	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/30/1997	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	8/10/1997	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	8/15/1997	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	9/14/1997	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	9/27/1998	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	11/1/1999	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	11/9/1999	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	12/22/1999	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	2/14/2000	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	8/21/2001	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	8/31/2001	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	9/15/2001	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	8/10/2002	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	9/18/2002	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	8/28/2005	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	10/25/2005	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	9/22/2006	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	10/3/2007	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	10/1/2009	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	8/28/2011	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	9/10/2011	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	9/18/2011	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	10/11/2011	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	10/23/2011	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	7/7/2012	0.5	0.50	0.65	0.33	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.64544453
5592050	10/20/1991	0.49	0.49	0.65	0.32	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.83253564
5592050	9/27/1996	0.49	0.49	0.65	0.32	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.83253564
5592050	10/24/1996	0.49	0.49	0.65	0.32	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.83253564
5592050	10/28/1996	0.49	0.49	0.65	0.32	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.83253564
5592050	12/12/1999	0.49	0.49	0.65	0.32	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.83253564
5592050	1/19/2000	0.49	0.49	0.65	0.32	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.83253564
5592050	8/28/2001	0.49	0.49	0.65	0.32	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.83253564
5592050	8/19/2004	0.49	0.49	0.65	0.32	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.83253564
5592050	8/21/2005	0.49	0.49	0.65	0.32	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.83253564
5592050	9/10/2005	0.49	0.49	0.65	0.32	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.83253564
5592050	9/12/2005	0.49	0.49	0.65	0.32	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.83253564
5592050	9/20/2005	0.49	0.49	0.65	0.32	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.83253564
5592050	10/24/2005	0.49	0.49	0.65	0.32	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.83253564
5592050	9/24/2006	0.49	0.49	0.65	0.32	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.83253564
5592050	9/3/2009	0.49	0.49	0.65	0.32	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.83253564
5592050	8/26/2011	0.49	0.49	0.65	0.32	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.83253564
5592050	9/21/2011	0.49	0.49	0.65	0.32	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.83253564
5592050	10/31/2011	0.49	0.49	0.65	0.32	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.83253564
5592050	12/6/2013	0.49	0.49	0.65	0.32	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.83253564

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/29/1991	0.48	0.48	0.65	0.31	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.01962675
5592050	8/19/1992	0.48	0.48	0.65	0.31	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.01962675
5592050	9/11/1994	0.48	0.48	0.65	0.31	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.01962675
5592050	10/11/1994	0.48	0.48	0.65	0.31	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.01962675
5592050	10/1/1998	0.48	0.48	0.65	0.31	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.01962675
5592050	8/1/1999	0.48	0.48	0.65	0.31	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.01962675
5592050	9/6/2000	0.48	0.48	0.65	0.31	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.01962675
5592050	8/22/2001	0.48	0.48	0.65	0.31	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.01962675
5592050	8/11/2002	0.48	0.48	0.65	0.31	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.01962675
5592050	8/23/2002	0.48	0.48	0.65	0.31	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.01962675
5592050	8/10/2005	0.48	0.48	0.65	0.31	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.01962675
5592050	9/13/2005	0.48	0.48	0.65	0.31	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.01962675
5592050	8/29/2011	0.48	0.48	0.65	0.31	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.01962675
5592050	7/4/2012	0.48	0.48	0.65	0.31	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.01962675
5592050	11/8/2013	0.48	0.48	0.65	0.31	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39.01962675
5592050	10/21/1991	0.47	0.47	0.65	0.31	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.20671786
5592050	9/26/1994	0.47	0.47	0.65	0.31	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.20671786
5592050	10/14/1994	0.47	0.47	0.65	0.31	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.20671786
5592050	7/31/1997	0.47	0.47	0.65	0.31	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.20671786
5592050	8/26/1997	0.47	0.47	0.65	0.31	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.20671786
5592050	8/9/1999	0.47	0.47	0.65	0.31	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.20671786
5592050	11/26/1999	0.47	0.47	0.65	0.31	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.20671786
5592050	9/4/2004	0.47	0.47	0.65	0.31	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.20671786
5592050	8/20/2005	0.47	0.47	0.65	0.31	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.20671786
5592050	9/18/2005	0.47	0.47	0.65	0.31	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.20671786
5592050	9/9/2009	0.47	0.47	0.65	0.31	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.20671786
5592050	8/2/2012	0.47	0.47	0.65	0.31	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.20671786
5592050	8/27/2014	0.47	0.47	0.65	0.31	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.20671786
5592050	8/20/1992	0.46	0.46	0.65	0.30	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.39380897
5592050	10/15/1994	0.46	0.46	0.65	0.30	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.39380897
5592050	10/16/1994	0.46	0.46	0.65	0.30	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.39380897
5592050	10/16/1995	0.46	0.46	0.65	0.30	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.39380897
5592050	10/25/1996	0.46	0.46	0.65	0.30	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.39380897
5592050	11/14/1997	0.46	0.46	0.65	0.30	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.39380897
5592050	10/4/1998	0.46	0.46	0.65	0.30	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.39380897
5592050	10/18/1998	0.46	0.46	0.65	0.30	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.39380897
5592050	10/25/1998	0.46	0.46	0.65	0.30	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.39380897
5592050	1/18/2000	0.46	0.46	0.65	0.30	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.39380897
5592050	9/5/2004	0.46	0.46	0.65	0.30	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.39380897
5592050	8/11/2005	0.46	0.46	0.65	0.30	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.39380897
5592050	8/22/2005	0.46	0.46	0.65	0.30	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.39380897
5592050	8/26/2005	0.46	0.46	0.65	0.30	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.39380897
5592050	9/4/2009	0.46	0.46	0.65	0.30	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.39380897
5592050	8/25/2011	0.46	0.46	0.65	0.30	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.39380897

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/3/2012	0.46	0.46	0.65	0.30	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.39380897
5592050	10/23/2013	0.46	0.46	0.65	0.30	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.39380897
5592050	11/9/2013	0.46	0.46	0.65	0.30	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.39380897
5592050	8/28/1990	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	9/25/1990	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	10/2/1990	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	9/26/1992	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	9/27/1994	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	10/7/1994	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	10/12/1994	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	10/13/1994	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	10/11/1995	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	8/1/1997	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	8/13/1997	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	8/16/1997	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	11/1/1997	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	11/26/1997	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	11/29/1997	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	9/19/1998	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	11/10/1999	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	11/27/1999	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	12/23/1999	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	1/17/2000	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	2/6/2000	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	8/29/2001	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	9/1/2001	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	9/16/2001	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	9/24/2001	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	8/12/2002	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	8/13/2002	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	10/5/2002	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	9/6/2004	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	8/12/2005	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	8/29/2005	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	9/25/2005	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	9/23/2011	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	11/10/2013	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	11/16/2013	0.45	0.45	0.65	0.29	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.58090008
5592050	9/26/1990	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	10/18/1991	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	9/28/1994	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	8/20/1996	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	10/19/1998	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	10/20/1998	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/13/1999	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	8/30/2001	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	9/2/2001	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	9/3/2001	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	8/24/2002	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	8/6/2003	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	8/30/2005	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	9/9/2005	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	9/30/2006	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	9/10/2009	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	9/11/2011	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	9/24/2011	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	10/4/2011	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	10/5/2011	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	6/30/2012	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	8/17/2012	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	8/23/2012	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	11/11/2013	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	11/12/2013	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	12/8/2013	0.44	0.44	0.65	0.29	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35.76799119
5592050	9/12/1994	0.43	0.43	0.65	0.28	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.9550823
5592050	10/21/1996	0.43	0.43	0.65	0.28	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.9550823
5592050	8/2/1997	0.43	0.43	0.65	0.28	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.9550823
5592050	11/21/1997	0.43	0.43	0.65	0.28	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.9550823
5592050	10/10/1998	0.43	0.43	0.65	0.28	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.9550823
5592050	8/21/1999	0.43	0.43	0.65	0.28	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.9550823
5592050	11/28/1999	0.43	0.43	0.65	0.28	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.9550823
5592050	12/24/1999	0.43	0.43	0.65	0.28	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.9550823
5592050	8/19/2003	0.43	0.43	0.65	0.28	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.9550823
5592050	8/31/2005	0.43	0.43	0.65	0.28	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.9550823
5592050	9/1/2005	0.43	0.43	0.65	0.28	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.9550823
5592050	9/7/2005	0.43	0.43	0.65	0.28	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.9550823
5592050	9/8/2005	0.43	0.43	0.65	0.28	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.9550823
5592050	9/29/2006	0.43	0.43	0.65	0.28	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.9550823
5592050	9/11/2009	0.43	0.43	0.65	0.28	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.9550823
5592050	11/2/2011	0.43	0.43	0.65	0.28	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.9550823
5592050	7/2/2012	0.43	0.43	0.65	0.28	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.9550823
5592050	7/5/2012	0.43	0.43	0.65	0.28	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.9550823
5592050	11/13/2013	0.43	0.43	0.65	0.28	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.9550823
5592050	8/30/2015	0.43	0.43	0.65	0.28	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.9550823
5592050	8/31/1990	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	10/7/1990	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	7/8/1991	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	9/13/1994	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/17/1996	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	10/2/1998	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	10/8/1999	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	10/15/1999	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	1/13/2000	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	1/15/2000	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	2/15/2000	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	9/4/2001	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	9/17/2001	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	9/25/2001	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	8/23/2005	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	8/25/2005	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	9/2/2005	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	9/5/2005	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	9/21/2006	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	9/25/2006	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	10/24/2011	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	10/27/2011	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	9/20/2013	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	10/22/2013	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	10/24/2013	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	11/14/2013	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	11/15/2013	0.42	0.42	0.65	0.27	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.14217341
5592050	10/1/1990	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	10/17/1991	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	8/21/1992	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	8/22/1992	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	8/27/1992	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	10/20/1992	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	10/6/1994	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	11/15/1997	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	10/17/1998	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	8/10/1999	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	11/29/1999	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	12/4/1999	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	12/7/1999	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	12/9/1999	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	9/7/2000	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	9/8/2000	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	9/7/2004	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	9/8/2004	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	9/3/2005	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	9/28/2006	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	10/4/2007	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/22/2007	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	9/22/2009	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	10/3/2011	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	10/9/2011	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	9/11/2012	0.41	0.41	0.65	0.27	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.32926452
5592050	7/10/1991	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	10/30/1992	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	10/12/1995	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	10/17/1995	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	9/3/1996	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	10/20/1996	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	8/3/1997	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	8/14/1997	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	10/3/1998	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	8/2/1999	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	8/6/1999	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	8/11/1999	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	8/12/1999	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	11/11/1999	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	11/30/1999	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	12/1/1999	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	12/11/1999	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	1/14/2000	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	1/16/2000	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	1/20/2000	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	2/5/2000	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	8/25/2002	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	9/15/2002	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	9/9/2004	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	8/24/2005	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	9/4/2005	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	9/6/2005	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	10/1/2007	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	9/12/2009	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	9/25/2009	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	8/30/2011	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	9/1/2011	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	10/6/2011	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	10/28/2011	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	10/30/2011	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	7/6/2012	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	10/25/2013	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	10/30/2013	0.4	0.40	0.65	0.26	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.51635562
5592050	7/16/1991	0.39	0.39	0.65	0.25	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31.70344673

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/16/1991	0.39	0.39	0.65	0.25	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31.70344673
5592050	9/10/1992	0.39	0.39	0.65	0.25	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31.70344673
5592050	9/22/1992	0.39	0.39	0.65	0.25	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31.70344673
5592050	9/24/1994	0.39	0.39	0.65	0.25	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31.70344673
5592050	8/21/1996	0.39	0.39	0.65	0.25	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31.70344673
5592050	8/19/1999	0.39	0.39	0.65	0.25	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31.70344673
5592050	10/16/1999	0.39	0.39	0.65	0.25	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31.70344673
5592050	12/3/1999	0.39	0.39	0.65	0.25	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31.70344673
5592050	12/25/1999	0.39	0.39	0.65	0.25	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31.70344673
5592050	2/3/2000	0.39	0.39	0.65	0.25	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31.70344673
5592050	2/16/2000	0.39	0.39	0.65	0.25	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31.70344673
5592050	9/5/2001	0.39	0.39	0.65	0.25	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31.70344673
5592050	9/19/2005	0.39	0.39	0.65	0.25	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31.70344673
5592050	10/12/2005	0.39	0.39	0.65	0.25	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31.70344673
5592050	10/1/2006	0.39	0.39	0.65	0.25	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31.70344673
5592050	9/26/2009	0.39	0.39	0.65	0.25	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31.70344673
5592050	8/31/2011	0.39	0.39	0.65	0.25	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31.70344673
5592050	9/8/2011	0.39	0.39	0.65	0.25	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31.70344673
5592050	9/30/1990	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	10/14/1991	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	9/14/1994	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	10/13/1995	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	10/19/1995	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	8/4/1997	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	12/2/1999	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	12/8/1999	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	2/17/2000	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	9/6/2001	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	9/7/2001	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	9/26/2001	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	8/26/2002	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	10/13/2005	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	9/21/2009	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	9/23/2009	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	9/27/2009	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	10/3/2009	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	9/22/2011	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	9/29/2011	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	10/7/2011	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	10/26/2011	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	6/28/2012	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	7/16/2012	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	7/23/2012	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	10/19/2013	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/26/2013	0.38	0.38	0.65	0.25	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.89053784
5592050	9/22/1990	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	9/28/1990	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	9/29/1990	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	9/29/1994	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	10/18/1995	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	11/8/1997	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	8/3/1999	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	12/26/1999	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	9/21/2005	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	9/26/2006	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	10/21/2007	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	9/13/2009	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	9/20/2009	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	9/24/2009	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	10/5/2009	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	9/3/2011	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	10/2/2011	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	10/8/2011	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	7/1/2012	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	10/20/2013	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	10/21/2013	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	11/12/2015	0.37	0.37	0.65	0.24	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.07762895
5592050	9/21/1990	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	9/24/1990	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	8/23/1992	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	8/28/1992	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	10/2/1994	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	10/19/1996	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	8/5/1997	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	11/13/1997	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	10/11/1998	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	8/4/1999	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	9/27/2001	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	9/10/2004	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	10/18/2005	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	9/27/2006	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	9/14/2009	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	9/15/2009	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	10/4/2009	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	9/12/2011	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	9/30/2011	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	10/1/2011	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	10/29/2011	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/29/2012	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	7/18/2012	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	10/27/2013	0.36	0.36	0.65	0.24	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29.26472006
5592050	10/13/1991	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	8/24/1992	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	9/25/1992	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	10/21/1992	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	9/16/1994	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	10/1/1994	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	10/5/1994	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	8/22/1996	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	8/9/1997	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	10/26/1997	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	11/5/1997	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	11/16/1997	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	11/22/1997	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	11/12/1999	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	11/23/1999	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	12/27/1999	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	2/4/2000	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	8/27/2002	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	9/11/2004	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	9/26/2005	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	9/30/2009	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	10/25/2011	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	7/13/2012	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	7/17/2012	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	7/22/2012	0.35	0.35	0.65	0.23	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28.45181117
5592050	9/27/1990	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	7/9/1991	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	10/15/1991	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	9/15/1994	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	9/22/1994	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	9/30/1994	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	10/3/1994	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	10/4/1994	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	8/6/1997	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	11/9/1997	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	8/5/1999	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	8/23/1999	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	12/28/1999	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	9/8/2001	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	9/28/2001	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	10/14/2005	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/16/2006	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	9/16/2009	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	9/28/2009	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	9/2/2011	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	7/8/2012	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	8/22/2012	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	10/28/2013	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	8/31/2015	0.34	0.34	0.65	0.22	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27.63890228
5592050	9/23/1990	0.33	0.33	0.65	0.22	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.82599339
5592050	8/26/1992	0.33	0.33	0.65	0.22	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.82599339
5592050	9/17/1994	0.33	0.33	0.65	0.22	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.82599339
5592050	9/18/1994	0.33	0.33	0.65	0.22	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.82599339
5592050	11/10/1997	0.33	0.33	0.65	0.22	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.82599339
5592050	12/29/1999	0.33	0.33	0.65	0.22	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.82599339
5592050	1/21/2000	0.33	0.33	0.65	0.22	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.82599339
5592050	8/28/2002	0.33	0.33	0.65	0.22	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.82599339
5592050	9/12/2004	0.33	0.33	0.65	0.22	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.82599339
5592050	10/15/2005	0.33	0.33	0.65	0.22	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.82599339
5592050	10/19/2005	0.33	0.33	0.65	0.22	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.82599339
5592050	9/13/2011	0.33	0.33	0.65	0.22	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.82599339
5592050	11/11/2015	0.33	0.33	0.65	0.22	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.82599339
5592050	9/18/1990	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	10/6/1991	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	10/22/1992	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	9/20/1994	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	9/21/1994	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	9/16/1996	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	8/7/1997	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	8/31/1997	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	9/29/1999	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	10/3/1999	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	10/21/1999	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	11/13/1999	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	12/30/1999	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	9/29/2001	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	10/9/2005	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	10/16/2005	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	10/17/2005	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	9/17/2009	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	9/18/2009	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	9/29/2009	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	9/4/2011	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	8/21/2012	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	9/13/2012	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/8/2013	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	10/29/2013	0.32	0.32	0.65	0.21	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26.0130845
5592050	8/25/1992	0.31	0.31	0.65	0.20	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25.20017561
5592050	9/23/1992	0.31	0.31	0.65	0.20	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25.20017561
5592050	8/23/1996	0.31	0.31	0.65	0.20	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25.20017561
5592050	11/11/1997	0.31	0.31	0.65	0.20	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25.20017561
5592050	11/12/1997	0.31	0.31	0.65	0.20	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25.20017561
5592050	11/17/1997	0.31	0.31	0.65	0.20	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25.20017561
5592050	8/14/1999	0.31	0.31	0.65	0.20	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25.20017561
5592050	10/14/1999	0.31	0.31	0.65	0.20	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25.20017561
5592050	10/19/1999	0.31	0.31	0.65	0.20	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25.20017561
5592050	10/22/1999	0.31	0.31	0.65	0.20	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25.20017561
5592050	12/31/1999	0.31	0.31	0.65	0.20	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25.20017561
5592050	8/29/2002	0.31	0.31	0.65	0.20	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25.20017561
5592050	8/7/2003	0.31	0.31	0.65	0.20	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25.20017561
5592050	9/19/2009	0.31	0.31	0.65	0.20	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25.20017561
5592050	7/9/2012	0.31	0.31	0.65	0.20	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25.20017561
5592050	7/10/2012	0.31	0.31	0.65	0.20	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25.20017561
5592050	9/12/2012	0.31	0.31	0.65	0.20	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25.20017561
5592050	10/7/2013	0.31	0.31	0.65	0.20	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25.20017561
5592050	10/16/2013	0.31	0.31	0.65	0.20	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25.20017561
5592050	10/17/2013	0.31	0.31	0.65	0.20	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25.20017561
5592050	1/1/1990	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	9/9/1990	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	9/10/1990	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	9/28/1991	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	8/29/1992	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	9/20/1992	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	9/19/1994	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	8/8/1997	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	9/15/1997	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	9/17/1997	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	11/23/1997	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	8/18/1999	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	11/14/1999	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	1/1/2000	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	1/2/2000	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	2/2/2000	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	9/30/2001	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	10/1/2001	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	9/14/2002	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	9/14/2012	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	9/15/2012	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	10/15/2013	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/7/2013	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	7/31/2014	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	9/19/2015	0.3	0.30	0.65	0.20	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24.38726672
5592050	9/20/1990	0.29	0.29	0.65	0.19	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23.57435783
5592050	10/6/1990	0.29	0.29	0.65	0.19	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23.57435783
5592050	8/4/1991	0.29	0.29	0.65	0.19	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23.57435783
5592050	9/3/1991	0.29	0.29	0.65	0.19	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23.57435783
5592050	10/12/1991	0.29	0.29	0.65	0.19	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23.57435783
5592050	9/3/1992	0.29	0.29	0.65	0.19	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23.57435783
5592050	8/24/1996	0.29	0.29	0.65	0.19	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23.57435783
5592050	9/24/1996	0.29	0.29	0.65	0.19	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23.57435783
5592050	8/30/1997	0.29	0.29	0.65	0.19	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23.57435783
5592050	10/20/1999	0.29	0.29	0.65	0.19	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23.57435783
5592050	8/30/2002	0.29	0.29	0.65	0.19	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23.57435783
5592050	10/2/2006	0.29	0.29	0.65	0.19	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23.57435783
5592050	7/12/2012	0.29	0.29	0.65	0.19	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23.57435783
5592050	7/19/2012	0.29	0.29	0.65	0.19	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23.57435783
5592050	7/21/2012	0.29	0.29	0.65	0.19	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23.57435783
5592050	7/24/2012	0.29	0.29	0.65	0.19	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23.57435783
5592050	8/3/2012	0.29	0.29	0.65	0.19	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23.57435783
5592050	8/20/2012	0.29	0.29	0.65	0.19	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23.57435783
5592050	10/3/2013	0.29	0.29	0.65	0.19	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23.57435783
5592050	10/9/2013	0.29	0.29	0.65	0.19	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23.57435783
5592050	9/24/1992	0.28	0.28	0.65	0.18	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22.76144894
5592050	9/27/1992	0.28	0.28	0.65	0.18	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22.76144894
5592050	10/17/1992	0.28	0.28	0.65	0.18	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22.76144894
5592050	10/23/1992	0.28	0.28	0.65	0.18	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22.76144894
5592050	9/25/1996	0.28	0.28	0.65	0.18	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22.76144894
5592050	11/2/1997	0.28	0.28	0.65	0.18	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22.76144894
5592050	11/25/1997	0.28	0.28	0.65	0.18	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22.76144894
5592050	8/22/1999	0.28	0.28	0.65	0.18	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22.76144894
5592050	11/15/1999	0.28	0.28	0.65	0.18	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22.76144894
5592050	10/2/2001	0.28	0.28	0.65	0.18	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22.76144894
5592050	10/3/2001	0.28	0.28	0.65	0.18	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22.76144894
5592050	10/4/2001	0.28	0.28	0.65	0.18	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22.76144894
5592050	8/31/2002	0.28	0.28	0.65	0.18	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22.76144894
5592050	9/13/2004	0.28	0.28	0.65	0.18	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22.76144894
5592050	10/8/2004	0.28	0.28	0.65	0.18	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22.76144894
5592050	10/8/2005	0.28	0.28	0.65	0.18	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22.76144894
5592050	10/12/2013	0.28	0.28	0.65	0.18	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22.76144894
5592050	9/1/1990	0.27	0.27	0.65	0.18	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.94854005
5592050	9/11/1990	0.27	0.27	0.65	0.18	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.94854005
5592050	9/23/1996	0.27	0.27	0.65	0.18	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.94854005
5592050	9/28/1996	0.27	0.27	0.65	0.18	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.94854005

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/16/1996	0.27	0.27	0.65	0.18	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.94854005
5592050	8/27/1997	0.27	0.27	0.65	0.18	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.94854005
5592050	10/13/1997	0.27	0.27	0.65	0.18	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.94854005
5592050	11/18/1997	0.27	0.27	0.65	0.18	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.94854005
5592050	11/24/1997	0.27	0.27	0.65	0.18	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.94854005
5592050	11/16/1999	0.27	0.27	0.65	0.18	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.94854005
5592050	1/22/2000	0.27	0.27	0.65	0.18	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.94854005
5592050	9/1/2002	0.27	0.27	0.65	0.18	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.94854005
5592050	8/8/2003	0.27	0.27	0.65	0.18	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.94854005
5592050	9/5/2011	0.27	0.27	0.65	0.18	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.94854005
5592050	8/13/2012	0.27	0.27	0.65	0.18	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.94854005
5592050	8/19/2012	0.27	0.27	0.65	0.18	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.94854005
5592050	9/18/2012	0.27	0.27	0.65	0.18	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.94854005
5592050	10/4/2013	0.27	0.27	0.65	0.18	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.94854005
5592050	10/10/2013	0.27	0.27	0.65	0.18	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.94854005
5592050	11/3/2015	0.27	0.27	0.65	0.18	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.94854005
5592050	8/25/1996	0.26	0.26	0.65	0.17	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.13563116
5592050	10/14/1996	0.26	0.26	0.65	0.17	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.13563116
5592050	10/15/1996	0.26	0.26	0.65	0.17	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.13563116
5592050	8/15/1999	0.26	0.26	0.65	0.17	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.13563116
5592050	8/16/1999	0.26	0.26	0.65	0.17	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.13563116
5592050	11/17/1999	0.26	0.26	0.65	0.17	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.13563116
5592050	9/2/2002	0.26	0.26	0.65	0.17	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.13563116
5592050	9/15/2004	0.26	0.26	0.65	0.17	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.13563116
5592050	10/11/2005	0.26	0.26	0.65	0.17	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.13563116
5592050	9/7/2011	0.26	0.26	0.65	0.17	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.13563116
5592050	7/20/2012	0.26	0.26	0.65	0.17	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.13563116
5592050	8/14/2012	0.26	0.26	0.65	0.17	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.13563116
5592050	10/5/2013	0.26	0.26	0.65	0.17	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.13563116
5592050	10/11/2013	0.26	0.26	0.65	0.17	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.13563116
5592050	10/13/2013	0.26	0.26	0.65	0.17	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.13563116
5592050	10/18/2013	0.26	0.26	0.65	0.17	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.13563116
5592050	9/20/2015	0.26	0.26	0.65	0.17	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21.13563116
5592050	9/12/1990	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	7/17/1991	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	9/23/1991	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	8/30/1992	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	10/24/1992	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	10/12/1996	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	10/13/1996	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	9/16/1997	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	9/23/1997	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	10/27/1997	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	11/19/1997	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load (lbs/day)
5592050	8/17/1999	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	10/23/1999	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	11/18/1999	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	11/22/1999	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	9/3/2002	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	9/16/2002	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	8/18/2003	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	9/14/2004	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	9/16/2004	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	9/6/2011	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	7/11/2012	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	9/19/2012	0.25	0.25	0.65	0.16	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20.32272227
5592050	9/5/1990	0.24	0.24	0.65	0.16	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19.50981337
5592050	9/6/1990	0.24	0.24	0.65	0.16	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19.50981337
5592050	9/22/1991	0.24	0.24	0.65	0.16	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19.50981337
5592050	9/2/1992	0.24	0.24	0.65	0.16	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19.50981337
5592050	9/4/1996	0.24	0.24	0.65	0.16	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19.50981337
5592050	9/21/1996	0.24	0.24	0.65	0.16	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19.50981337
5592050	10/10/1996	0.24	0.24	0.65	0.16	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19.50981337
5592050	8/28/1997	0.24	0.24	0.65	0.16	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19.50981337
5592050	11/20/1997	0.24	0.24	0.65	0.16	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19.50981337
5592050	10/12/1998	0.24	0.24	0.65	0.16	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19.50981337
5592050	11/19/1999	0.24	0.24	0.65	0.16	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19.50981337
5592050	9/4/2002	0.24	0.24	0.65	0.16	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19.50981337
5592050	8/20/2003	0.24	0.24	0.65	0.16	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19.50981337
5592050	10/6/2013	0.24	0.24	0.65	0.16	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19.50981337
5592050	10/14/2013	0.24	0.24	0.65	0.16	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19.50981337
5592050	9/1/2015	0.24	0.24	0.65	0.16	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19.50981337
5592050	11/10/2015	0.24	0.24	0.65	0.16	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19.50981337
5592050	9/4/1990	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	9/8/1990	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	9/14/1990	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	7/18/1991	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	7/30/1991	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	10/3/1991	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	8/31/1992	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	10/25/1992	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	8/26/1996	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	9/17/1996	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	9/20/1996	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	9/22/1996	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	9/29/1996	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	10/1/1996	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	10/9/1996	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/11/1996	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	8/29/1997	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	10/14/1997	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	11/3/1997	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	11/20/1999	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	11/21/1999	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	1/23/2000	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	9/5/2002	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	9/6/2002	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	8/24/2003	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	9/17/2004	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	10/7/2004	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	9/22/2005	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	10/10/2005	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	7/25/2012	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	8/18/2012	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	9/17/2012	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	9/24/2012	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	9/21/2015	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	10/28/2015	0.23	0.23	0.65	0.15	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18.69690448
5592050	9/7/1990	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	9/13/1990	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	9/15/1990	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	9/16/1990	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	9/17/1990	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	10/10/1991	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	10/15/1992	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	8/31/1996	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	9/1/1996	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	9/7/1996	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	9/19/1996	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	9/30/1996	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	10/2/1996	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	9/18/1997	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	10/28/1997	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	9/28/1999	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	10/24/1999	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	9/7/2002	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	9/8/2002	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	9/17/2002	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	9/30/2005	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	8/15/2012	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	9/16/2012	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	9/20/2012	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/27/2015	0.22	0.22	0.65	0.14	9041	94.4328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.88399559
5592050	9/9/1992	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	10/26/1992	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	8/27/1996	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	8/28/1996	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	8/29/1996	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	8/30/1996	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	9/2/1996	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	9/6/1996	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	9/8/1996	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	9/9/1996	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	9/10/1996	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	9/11/1996	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	9/18/1996	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	10/8/1996	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	10/15/1997	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	8/25/1999	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	8/26/1999	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	9/25/1999	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	10/13/1999	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	10/18/1999	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	1/24/2000	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	2/1/2000	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	9/9/2002	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	9/10/2002	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	9/11/2002	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	9/18/2004	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	9/18/2013	0.21	0.21	0.65	0.14	9066	94.6940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17.0710867
5592050	9/3/1990	0.2	0.20	0.65	0.13	9093	94.9760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16.25817781
5592050	7/19/1991	0.2	0.20	0.65	0.13	9093	94.9760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16.25817781
5592050	8/13/1991	0.2	0.20	0.65	0.13	9093	94.9760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16.25817781
5592050	10/11/1991	0.2	0.20	0.65	0.13	9093	94.9760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16.25817781
5592050	10/27/1992	0.2	0.20	0.65	0.13	9093	94.9760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16.25817781
5592050	10/4/1996	0.2	0.20	0.65	0.13	9093	94.9760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16.25817781
5592050	9/1/1997	0.2	0.20	0.65	0.13	9093	94.9760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16.25817781
5592050	9/24/1997	0.2	0.20	0.65	0.13	9093	94.9760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16.25817781
5592050	10/10/1997	0.2	0.20	0.65	0.13	9093	94.9760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16.25817781
5592050	10/29/1997	0.2	0.20	0.65	0.13	9093	94.9760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16.25817781
5592050	11/4/1997	0.2	0.20	0.65	0.13	9093	94.9760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16.25817781
5592050	10/13/1998	0.2	0.20	0.65	0.13	9093	94.9760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16.25817781
5592050	9/3/1999	0.2	0.20	0.65	0.13	9093	94.9760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16.25817781
5592050	10/17/1999	0.2	0.20	0.65	0.13	9093	94.9760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16.25817781
5592050	10/25/1999	0.2	0.20	0.65	0.13	9093	94.9760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16.25817781
5592050	1/25/2000	0.2	0.20	0.65	0.13	9093	94.9760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16.25817781

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	9/12/2002	0.2	0.20	0.65	0.13	9093	94.9760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16.25817781
5592050	9/13/2002	0.2	0.20	0.65	0.13	9093	94.9760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16.25817781
5592050	10/15/2007	0.2	0.20	0.65	0.13	9093	94.9760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16.25817781
5592050	9/23/2012	0.2	0.20	0.65	0.13	9093	94.9760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16.25817781
5592050	10/2/2013	0.2	0.20	0.65	0.13	9093	94.9760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16.25817781
5592050	7/20/1991	0.19	0.19	0.65	0.12	9114	95.1953%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15.44526892
5592050	7/28/1991	0.19	0.19	0.65	0.12	9114	95.1953%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15.44526892
5592050	10/18/1992	0.19	0.19	0.65	0.12	9114	95.1953%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15.44526892
5592050	10/19/1992	0.19	0.19	0.65	0.12	9114	95.1953%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15.44526892
5592050	9/5/1996	0.19	0.19	0.65	0.12	9114	95.1953%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15.44526892
5592050	10/5/1996	0.19	0.19	0.65	0.12	9114	95.1953%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15.44526892
5592050	10/7/1996	0.19	0.19	0.65	0.12	9114	95.1953%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15.44526892
5592050	10/16/1997	0.19	0.19	0.65	0.12	9114	95.1953%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15.44526892
5592050	8/9/2003	0.19	0.19	0.65	0.12	9114	95.1953%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15.44526892
5592050	9/23/2005	0.19	0.19	0.65	0.12	9114	95.1953%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15.44526892
5592050	10/3/2006	0.19	0.19	0.65	0.12	9114	95.1953%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15.44526892
5592050	9/21/2012	0.19	0.19	0.65	0.12	9114	95.1953%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15.44526892
5592050	9/22/2012	0.19	0.19	0.65	0.12	9114	95.1953%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15.44526892
5592050	9/4/2014	0.19	0.19	0.65	0.12	9114	95.1953%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15.44526892
5592050	9/12/2015	0.19	0.19	0.65	0.12	9114	95.1953%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15.44526892
5592050	9/13/2015	0.19	0.19	0.65	0.12	9114	95.1953%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15.44526892
5592050	9/2/1990	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	8/3/1991	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	9/25/1991	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	9/19/1992	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	10/28/1992	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	9/15/1996	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	10/3/1996	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	10/6/1996	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	10/11/1997	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	10/17/1997	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	10/30/1997	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	10/15/1998	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	1/26/2000	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	8/17/2003	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	8/23/2003	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	9/19/2004	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	10/7/2005	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	10/4/2006	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	10/5/2006	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	10/6/2006	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	10/7/2006	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	10/8/2006	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	10/9/2006	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/10/2006	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	10/11/2006	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	10/12/2006	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	8/5/2012	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	8/10/2012	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	9/17/2013	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	9/2/2015	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	9/14/2015	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	9/15/2015	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	11/9/2015	0.18	0.18	0.65	0.12	9130	95.3624%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14.63236003
5592050	7/21/1991	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	10/9/1991	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	9/1/1992	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	9/12/1996	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	9/13/1996	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	9/14/1996	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	10/18/1997	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	10/19/1997	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	10/31/1997	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	10/16/1998	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	8/27/1999	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	9/2/1999	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	9/4/1999	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	10/4/1999	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	10/26/1999	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	10/2/2007	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	8/1/2012	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	9/24/2013	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	9/30/2013	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	10/1/2013	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	9/11/2015	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	9/16/2015	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	9/17/2015	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	9/18/2015	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	9/22/2015	0.17	0.17	0.65	0.11	9163	95.7071%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.81945114
5592050	10/7/1991	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/29/1992	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/19/1997	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/12/1997	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/20/1997	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/21/1997	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/14/1998	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/28/1999	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/5/1999	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/7/1999	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/12/1999	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	1/27/2000	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	1/31/2000	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/10/2003	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/21/2003	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/13/2006	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/5/2007	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	7/29/2012	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	7/30/2012	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/16/2013	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/19/2013	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/23/2015	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/24/2015	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/25/2015	0.16	0.16	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	7/27/1991	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/4/1991	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/24/1991	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/4/1992	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/18/1992	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/9/1997	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/22/1997	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/23/1997	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/31/1999	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/1/1999	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/26/1999	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/27/1999	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/6/1999	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/11/2003	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/20/2004	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/14/2006	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/15/2006	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/8/2012	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/12/2012	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/3/2012	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/26/2015	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/27/2015	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/28/2015	0.15	0.15	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	7/22/1991	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/10/1991	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/8/1992	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/25/1997	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/1/1997	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/24/1997	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/25/1997	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/29/1999	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/30/1999	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/6/1999	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/24/1999	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/2/1999	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/5/1999	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/11/1999	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/27/1999	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	1/28/2000	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	1/29/2000	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	1/30/2000	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/21/2004	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/24/2005	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	7/26/2012	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	7/27/2012	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/4/2012	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/11/2012	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/26/2013	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/14/2013	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/29/2015	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/30/2015	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	11/8/2015	0.14	0.14	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	7/31/1991	0.13	0.13	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/29/1991	0.13	0.13	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/6/1992	0.13	0.13	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/7/1992	0.13	0.13	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/14/1992	0.13	0.13	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/2/1997	0.13	0.13	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/15/1999	0.13	0.13	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/25/2003	0.13	0.13	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/30/2004	0.13	0.13	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/6/2004	0.13	0.13	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/1/2005	0.13	0.13	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	7/28/2012	0.13	0.13	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	7/31/2012	0.13	0.13	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/31/2012	0.13	0.13	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/4/2012	0.13	0.13	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/13/2013	0.13	0.13	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/29/2013	0.13	0.13	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/7/2014	0.13	0.13	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/1/2015	0.13	0.13	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/2/2015	0.13	0.13	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	7/26/1991	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/1/1991	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/5/1992	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/20/1997	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/30/1997	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/3/1997	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/4/1997	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/7/1999	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/13/1999	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/14/1999	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/16/1999	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/9/1999	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/28/1999	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/22/2004	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/29/2004	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/28/2005	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/7/2012	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/29/2012	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/21/2013	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/3/2015	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/4/2015	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/5/2015	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/6/2015	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/29/2015	0.12	0.12	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	7/25/1991	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/2/1991	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/26/1991	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/28/1992	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/8/1992	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/8/1997	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/5/1997	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/6/1997	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/23/2004	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/27/2004	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/28/2004	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/1/2004	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/2/2004	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/6/2012	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/4/2014	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/3/2015	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/7/2015	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/8/2015	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/9/2015	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/10/2015	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	11/2/2015	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/7/2015	0.11	0.11	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/8/1991	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/9/1992	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/13/1992	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/2/1997	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/26/1997	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/29/1997	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/7/1997	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/8/1997	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/8/1999	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/17/1999	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/29/1999	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/12/2003	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/16/2003	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/22/2003	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/30/2003	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/24/2004	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/6/2007	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/7/2007	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/13/2007	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/14/2007	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/30/2012	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/1/2013	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/15/2013	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/23/2013	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/30/2014	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/11/2015	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/12/2015	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/13/2015	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/14/2015	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/15/2015	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/16/2015	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/17/2015	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/26/2015	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/30/2015	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/31/2015	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	11/1/2015	0.1	0.10	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	7/23/1991	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	7/24/1991	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/27/1991	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/30/1992	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/1/1992	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/3/1992	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/10/1992	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/11/1992	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/12/1992	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/22/1999	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/30/1999	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/26/2003	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/3/2004	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/5/2004	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/27/2005	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/2/2005	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/6/2005	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/8/2007	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/9/2007	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/10/2007	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/11/2007	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/12/2007	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/2/2012	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/22/2013	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/17/2014	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/23/2014	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/18/2015	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/19/2015	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/20/2015	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/21/2015	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/22/2015	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/23/2015	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/25/2015	0.09	0.09	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/2/1992	0.08	0.08	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/4/1992	0.08	0.08	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/5/1992	0.08	0.08	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/7/1992	0.08	0.08	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/21/1997	0.08	0.08	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/27/1997	0.08	0.08	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/9/1999	0.08	0.08	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/12/1999	0.08	0.08	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/21/1999	0.08	0.08	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/23/1999	0.08	0.08	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/10/1999	0.08	0.08	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/31/1999	0.08	0.08	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/25/2004	0.08	0.08	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/4/2004	0.08	0.08	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/27/2012	0.08	0.08	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/31/2013	0.08	0.08	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/13/2014	0.08	0.08	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/4/2015	0.08	0.08	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	9/5/2015	0.08	0.08	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/24/2015	0.08	0.08	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/14/1991	0.07	0.07	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/6/1992	0.07	0.07	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/10/1999	0.07	0.07	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/18/1999	0.07	0.07	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/20/1999	0.07	0.07	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/26/2004	0.07	0.07	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/3/2005	0.07	0.07	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/2/2013	0.07	0.07	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/6/2015	0.07	0.07	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/11/1991	0.06	0.06	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/13/1991	0.06	0.06	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/14/1992	0.06	0.06	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/15/1992	0.06	0.06	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/29/1992	0.06	0.06	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/22/1997	0.06	0.06	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/28/1997	0.06	0.06	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/11/1999	0.06	0.06	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/19/1999	0.06	0.06	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/13/2003	0.06	0.06	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/4/2005	0.06	0.06	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/4/2013	0.06	0.06	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/12/2013	0.06	0.06	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/27/2013	0.06	0.06	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/10/2015	0.06	0.06	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	11/6/2015	0.06	0.06	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/2/1991	0.05	0.05	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/21/1991	0.05	0.05	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/30/1991	0.05	0.05	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/11/1992	0.05	0.05	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/17/1992	0.05	0.05	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/3/1997	0.05	0.05	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/30/1999	0.05	0.05	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/15/2003	0.05	0.05	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/5/2005	0.05	0.05	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/27/2013	0.05	0.05	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/5/2013	0.05	0.05	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/6/2013	0.05	0.05	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/25/2013	0.05	0.05	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/28/2013	0.05	0.05	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/18/2014	0.05	0.05	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/7/2015	0.05	0.05	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/14/1991	0.04	0.04	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	9/15/1991	0.04	0.04	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/18/1991	0.04	0.04	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/2/1991	0.04	0.04	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/16/1992	0.04	0.04	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/1/1999	0.04	0.04	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/27/2003	0.04	0.04	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/1/2012	0.04	0.04	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/28/2013	0.04	0.04	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/29/2013	0.04	0.04	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/30/2013	0.04	0.04	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/3/2013	0.04	0.04	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/7/2013	0.04	0.04	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/8/2013	0.04	0.04	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/26/2013	0.04	0.04	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/9/2013	0.03	0.03	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/5/2014	0.03	0.03	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/19/2014	0.03	0.03	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/5/2014	0.03	0.03	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/30/1991	0.02	0.02	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/16/1991	0.02	0.02	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/20/1991	0.02	0.02	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/14/2003	0.02	0.02	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/30/2012	0.02	0.02	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/14/2014	0.02	0.02	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/24/2014	0.02	0.02	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/31/2014	0.02	0.02	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/1/2014	0.02	0.02	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/8/2014	0.02	0.02	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	11/5/2015	0.02	0.02	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/11/1991	0.01	0.01	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/17/1991	0.01	0.01	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/18/1991	0.01	0.01	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/12/1992	0.01	0.01	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/13/1992	0.01	0.01	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/28/2003	0.01	0.01	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/28/2012	0.01	0.01	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/29/2012	0.01	0.01	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/10/2013	0.01	0.01	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/11/2013	0.01	0.01	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/6/2014	0.01	0.01	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/15/2014	0.01	0.01	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/16/2014	0.01	0.01	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/25/2014	0.01	0.01	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/9/2014	0.01	0.01	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/12/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/15/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/16/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/19/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/20/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/21/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/22/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/23/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/24/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/25/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/26/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/27/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/28/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/31/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/1/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/5/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/6/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/7/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/8/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/9/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/12/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/17/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/19/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	10/1/1991	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/4/1997	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/5/1997	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/6/1997	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	9/7/1997	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/29/2003	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	8/26/2014	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	1/18/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	1/19/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	1/20/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	1/21/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	1/22/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	1/23/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	1/24/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	1/25/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	1/26/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	1/27/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	1/28/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	1/29/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	1/30/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	1/31/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896

TSS Load Duration Curve Calculations
(ERA-01)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	2/1/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/2/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/3/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/4/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/5/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/6/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/7/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/8/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/9/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/10/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/11/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/12/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/13/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/14/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/15/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/16/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/17/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/18/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/19/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/20/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/21/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/22/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/23/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/24/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896
5592050	2/25/2016	0	0.00	0.65	0.11	9188	95.9682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13.17513896

Middle Sangamon River (EZM-02)

TSS

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	9/23/1993	7460	7460.00	1.04	7733.07	1	0.0104%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	962938.7765
5592050	12/27/2015	6480	6480.00	1.04	6717.20	2	0.0209%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	836440.1168
5592050	6/6/2001	4650	4650.00	1.04	4820.21	3	0.0313%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	600223.232
5592050	4/29/1996	4330	4330.00	1.04	4488.50	4	0.0418%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	558917.5472
5592050	5/12/2002	4180	4180.00	1.04	4333.01	5	0.0522%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	539555.5075
5592050	6/19/2015	4110	4110.00	1.04	4260.44	6	0.0627%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	530519.8889
5592050	5/16/1990	3810	3810.00	1.04	3949.46	7	0.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	491795.8094
5592050	5/13/1990	3490	3490.00	1.04	3617.75	8	0.0836%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	450490.1246
5592050	5/13/2002	3260	3260.00	1.04	3379.33	9	0.0940%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	420801.6637
5592050	12/28/2008	3210	3210.00	1.04	3327.50	10	0.1044%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	414347.6505
5592050	4/12/1994	3110	3110.00	1.04	3223.84	11	0.1149%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	401439.624
5592050	12/30/1990	3100	3100.00	1.04	3213.47	12	0.1253%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	400148.8213
5592050	12/28/2015	3020	3020.00	1.04	3130.55	13	0.1358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	389822.4001
5592050	6/24/2010	3000	3000.00	1.04	3109.81	14	0.1462%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387240.7948
5592050	10/5/2000	2900	2900.00	1.04	3006.15	15	0.1567%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374332.7683
5592050	4/19/2013	2900	2900.00	1.04	3006.15	15	0.1567%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374332.7683
5592050	9/15/2008	2800	2800.00	1.04	2902.49	17	0.1776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361424.7418
5592050	12/29/1990	2710	2710.00	1.04	2809.20	18	0.1880%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	349807.518
5592050	1/13/2005	2640	2640.00	1.04	2736.64	19	0.1985%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	340771.8994
5592050	4/18/2013	2550	2550.00	1.04	2643.34	20	0.2089%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	329154.6756
5592050	12/25/2009	2540	2540.00	1.04	2632.98	21	0.2193%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	327863.873
5592050	1/5/2005	2530	2530.00	1.04	2622.61	22	0.2298%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	326573.0703
5592050	6/20/2015	2530	2530.00	1.04	2622.61	22	0.2298%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	326573.0703
5592050	9/3/2010	2510	2510.00	1.04	2601.88	24	0.2507%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	323991.465
5592050	5/7/2002	2450	2450.00	1.04	2539.68	25	0.2611%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	316246.6491
5592050	5/17/1995	2430	2430.00	1.04	2518.95	26	0.2716%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	313665.0438
5592050	6/13/2002	2430	2430.00	1.04	2518.95	26	0.2716%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	313665.0438
5592050	2/6/2008	2430	2430.00	1.04	2518.95	26	0.2716%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	313665.0438
5592050	5/10/1996	2360	2360.00	1.04	2446.39	29	0.3029%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	304629.4253
5592050	5/6/2002	2260	2260.00	1.04	2342.73	30	0.3133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	291721.3988
5592050	5/11/1996	2250	2250.00	1.04	2332.36	31	0.3238%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	290430.5961

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	5/27/1996	2200	2200.00	1.04	2280.53	32	0.3342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283976.5829
5592050	12/7/2004	2190	2190.00	1.04	2270.16	33	0.3447%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	282685.7802
5592050	4/7/2006	2140	2140.00	1.04	2218.33	34	0.3551%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	276231.767
5592050	4/28/2002	2120	2120.00	1.04	2197.60	35	0.3656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	273650.1617
5592050	5/9/1995	2100	2100.00	1.04	2176.87	36	0.3760%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271068.5564
5592050	5/14/2009	2080	2080.00	1.04	2156.14	37	0.3865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	268486.9511
5592050	12/29/2015	2030	2030.00	1.04	2104.31	38	0.3969%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	262032.9378
5592050	10/31/2009	2010	2010.00	1.04	2083.57	39	0.4074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	259451.3325
5592050	5/17/1990	1970	1970.00	1.04	2042.11	40	0.4178%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	254288.1219
5592050	5/8/1996	1960	1960.00	1.04	2031.74	41	0.4282%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	252997.3193
5592050	9/3/1993	1940	1940.00	1.04	2011.01	42	0.4387%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	250415.714
5592050	6/2/1999	1920	1920.00	1.04	1990.28	43	0.4491%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	247834.1087
5592050	1/6/2005	1920	1920.00	1.04	1990.28	43	0.4491%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	247834.1087
5592050	4/6/2006	1910	1910.00	1.04	1979.91	45	0.4700%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	246543.306
5592050	5/28/2013	1900	1900.00	1.04	1969.55	46	0.4805%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245252.5034
5592050	2/27/1997	1880	1880.00	1.04	1948.82	47	0.4909%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	242670.8981
5592050	2/11/2009	1880	1880.00	1.04	1948.82	47	0.4909%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	242670.8981
5592050	2/20/2014	1850	1850.00	1.04	1917.72	49	0.5118%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	238798.4901
5592050	1/4/2004	1830	1830.00	1.04	1896.99	50	0.5222%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	236216.8848
5592050	1/15/2007	1830	1830.00	1.04	1896.99	50	0.5222%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	236216.8848
5592050	6/7/2001	1800	1800.00	1.04	1865.89	52	0.5431%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232344.4769
5592050	2/25/2007	1800	1800.00	1.04	1865.89	52	0.5431%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232344.4769
5592050	5/9/1996	1780	1780.00	1.04	1845.16	54	0.5640%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	229762.8716
5592050	9/1/2003	1770	1770.00	1.04	1834.79	55	0.5745%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	228472.0689
5592050	4/11/1994	1760	1760.00	1.04	1824.42	56	0.5849%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227181.2663
5592050	4/20/2011	1760	1760.00	1.04	1824.42	56	0.5849%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	227181.2663
5592050	4/29/1994	1740	1740.00	1.04	1803.69	58	0.6058%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	224599.661
5592050	5/28/2002	1730	1730.00	1.04	1793.33	59	0.6163%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	223308.8584
5592050	10/6/2000	1720	1720.00	1.04	1782.96	60	0.6267%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	222018.0557
5592050	9/24/1993	1710	1710.00	1.04	1772.59	61	0.6371%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	220727.2531
5592050	5/18/1995	1710	1710.00	1.04	1772.59	61	0.6371%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	220727.2531

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/7/1999	1680	1680.00	1.04	1741.50	63	0.6580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	216854.8451
5592050	9/15/1993	1660	1660.00	1.04	1720.76	64	0.6685%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	214273.2398
5592050	1/28/1994	1640	1640.00	1.04	1700.03	65	0.6789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211691.6345
5592050	3/20/1998	1640	1640.00	1.04	1700.03	65	0.6789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	211691.6345
5592050	5/27/2013	1630	1630.00	1.04	1689.67	67	0.6998%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	210400.8319
5592050	2/21/2014	1590	1590.00	1.04	1648.20	68	0.7103%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	205237.6213
5592050	1/4/1993	1570	1570.00	1.04	1627.47	69	0.7207%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	202656.016
5592050	10/30/2009	1570	1570.00	1.04	1627.47	69	0.7207%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	202656.016
5592050	1/5/2004	1560	1560.00	1.04	1617.10	71	0.7416%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	201365.2133
5592050	3/12/2006	1560	1560.00	1.04	1617.10	71	0.7416%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	201365.2133
5592050	3/28/1998	1540	1540.00	1.04	1596.37	73	0.7625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	198783.608
5592050	4/28/1994	1510	1510.00	1.04	1565.27	74	0.7729%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	194911.2001
5592050	9/14/2008	1510	1510.00	1.04	1565.27	74	0.7729%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	194911.2001
5592050	5/9/2002	1500	1500.00	1.04	1554.91	76	0.7938%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193620.3974
5592050	3/19/2008	1490	1490.00	1.04	1544.54	77	0.8043%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	192329.5948
5592050	4/28/2011	1470	1470.00	1.04	1523.81	78	0.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	189747.9895
5592050	2/28/2011	1460	1460.00	1.04	1513.44	79	0.8252%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	188457.1868
5592050	4/25/1993	1450	1450.00	1.04	1503.08	80	0.8356%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	187166.3842
5592050	1/30/2001	1440	1440.00	1.04	1492.71	81	0.8460%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	185875.5815
5592050	1/22/1999	1430	1430.00	1.04	1482.34	82	0.8565%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	184584.7789
5592050	1/5/1993	1420	1420.00	1.04	1471.98	83	0.8669%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	183293.9762
5592050	4/1/2008	1410	1410.00	1.04	1461.61	84	0.8774%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	182003.1736
5592050	11/14/1993	1380	1380.00	1.04	1430.51	85	0.8878%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	178130.7656
5592050	2/25/2001	1370	1370.00	1.04	1420.15	86	0.8983%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	176839.963
5592050	5/8/2002	1370	1370.00	1.04	1420.15	86	0.8983%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	176839.963
5592050	4/30/2009	1370	1370.00	1.04	1420.15	86	0.8983%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	176839.963
5592050	12/24/2009	1370	1370.00	1.04	1420.15	86	0.8983%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	176839.963
5592050	11/17/1993	1360	1360.00	1.04	1409.78	90	0.9400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	175549.1603
5592050	4/28/1996	1350	1350.00	1.04	1399.42	91	0.9505%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	174258.3577
5592050	5/26/1996	1350	1350.00	1.04	1399.42	91	0.9505%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	174258.3577
5592050	12/21/1990	1340	1340.00	1.04	1389.05	93	0.9714%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	172967.555

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/15/1993	1340	1340.00	1.04	1389.05	93	0.9714%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	172967.555
5592050	5/28/1996	1330	1330.00	1.04	1378.68	95	0.9923%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	171676.7524
5592050	4/26/2011	1320	1320.00	1.04	1368.32	96	1.0027%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170385.9497
5592050	5/26/2011	1320	1320.00	1.04	1368.32	96	1.0027%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	170385.9497
5592050	7/5/2000	1310	1310.00	1.04	1357.95	98	1.0236%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	169095.1471
5592050	5/8/2009	1300	1300.00	1.04	1347.59	99	1.0341%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167804.3444
5592050	11/18/2009	1300	1300.00	1.04	1347.59	99	1.0341%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167804.3444
5592050	3/5/2011	1300	1300.00	1.04	1347.59	99	1.0341%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167804.3444
5592050	6/13/1994	1270	1270.00	1.04	1316.49	102	1.0654%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	163931.9365
5592050	1/23/1999	1270	1270.00	1.04	1316.49	102	1.0654%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	163931.9365
5592050	4/30/1996	1260	1260.00	1.04	1306.12	104	1.0863%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	162641.1338
5592050	3/7/1995	1240	1240.00	1.04	1285.39	105	1.0967%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	160059.5285
5592050	3/21/1998	1240	1240.00	1.04	1285.39	105	1.0967%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	160059.5285
5592050	6/22/2010	1240	1240.00	1.04	1285.39	105	1.0967%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	160059.5285
5592050	12/22/1990	1230	1230.00	1.04	1275.02	108	1.1281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	158768.7259
5592050	1/14/2005	1230	1230.00	1.04	1275.02	108	1.1281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	158768.7259
5592050	11/17/2009	1230	1230.00	1.04	1275.02	108	1.1281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	158768.7259
5592050	12/31/1990	1220	1220.00	1.04	1264.66	111	1.1594%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	157477.9232
5592050	6/1/2013	1220	1220.00	1.04	1264.66	111	1.1594%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	157477.9232
5592050	12/8/2004	1190	1190.00	1.04	1233.56	113	1.1803%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	153605.5153
5592050	1/27/1994	1180	1180.00	1.04	1223.19	114	1.1907%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	152314.7126
5592050	3/5/2004	1180	1180.00	1.04	1223.19	114	1.1907%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	152314.7126
5592050	5/13/2009	1180	1180.00	1.04	1223.19	114	1.1907%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	152314.7126
5592050	3/26/2004	1170	1170.00	1.04	1212.83	117	1.2221%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	151023.91
5592050	6/29/2015	1170	1170.00	1.04	1212.83	117	1.2221%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	151023.91
5592050	5/19/1995	1130	1130.00	1.04	1171.36	119	1.2429%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	145860.6994
5592050	12/27/2008	1130	1130.00	1.04	1171.36	119	1.2429%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	145860.6994
5592050	4/21/2002	1120	1120.00	1.04	1161.00	121	1.2638%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	144569.8967
5592050	4/11/2008	1120	1120.00	1.04	1161.00	121	1.2638%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	144569.8967
5592050	1/21/1993	1100	1100.00	1.04	1140.26	123	1.2847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141988.2914
5592050	2/12/2009	1100	1100.00	1.04	1140.26	123	1.2847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141988.2914

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/19/1993	1090	1090.00	1.04	1129.90	125	1.3056%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	140697.4888
5592050	6/13/1998	1090	1090.00	1.04	1129.90	125	1.3056%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	140697.4888
5592050	3/4/1993	1080	1080.00	1.04	1119.53	127	1.3265%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	139406.6861
5592050	5/3/1998	1080	1080.00	1.04	1119.53	127	1.3265%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	139406.6861
5592050	2/8/1999	1080	1080.00	1.04	1119.53	127	1.3265%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	139406.6861
5592050	5/10/2013	1070	1070.00	1.04	1109.17	130	1.3578%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	138115.8835
5592050	5/2/2002	1060	1060.00	1.04	1098.80	131	1.3683%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	136825.0808
5592050	6/5/2001	1050	1050.00	1.04	1088.43	132	1.3787%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	135534.2782
5592050	2/14/2005	1050	1050.00	1.04	1088.43	132	1.3787%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	135534.2782
5592050	12/4/1993	1040	1040.00	1.04	1078.07	134	1.3996%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	134243.4755
5592050	1/16/1991	1020	1020.00	1.04	1057.34	135	1.4101%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	131661.8702
5592050	11/18/2003	1010	1010.00	1.04	1046.97	136	1.4205%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	130371.0676
5592050	5/16/2009	1000	1000.00	1.04	1036.60	137	1.4310%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129080.2649
5592050	4/27/2002	995	995.00	1.04	1031.42	138	1.4414%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	128434.8636
5592050	4/29/2014	995	995.00	1.04	1031.42	138	1.4414%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	128434.8636
5592050	4/13/1994	986	986.00	1.04	1022.09	140	1.4623%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	127273.1412
5592050	4/22/2002	983	983.00	1.04	1018.98	141	1.4727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	126885.9004
5592050	2/1/2002	979	979.00	1.04	1014.84	142	1.4832%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	126369.5794
5592050	6/20/1990	972	972.00	1.04	1007.58	143	1.4936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	125466.0175
5592050	5/10/1995	970	970.00	1.04	1005.51	144	1.5041%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	125207.857
5592050	4/25/2002	969	969.00	1.04	1004.47	145	1.5145%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	125078.7767
5592050	12/26/2015	969	969.00	1.04	1004.47	145	1.5145%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	125078.7767
5592050	6/20/2009	967	967.00	1.04	1002.40	147	1.5354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	124820.6162
5592050	5/1/2012	953	953.00	1.04	987.88	148	1.5459%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	123013.4925
5592050	6/25/2010	949	949.00	1.04	983.74	149	1.5563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	122497.1714
5592050	6/23/2010	927	927.00	1.04	960.93	150	1.5667%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	119657.4056
5592050	5/1/2009	926	926.00	1.04	959.90	151	1.5772%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	119528.3253
5592050	6/12/2002	924	924.00	1.04	957.82	152	1.5876%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	119270.1648
5592050	12/17/2001	920	920.00	1.04	953.68	153	1.5981%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	118753.8437
5592050	2/5/2008	919	919.00	1.04	952.64	154	1.6085%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	118624.7635
5592050	2/4/1997	914	914.00	1.04	947.46	155	1.6190%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	117979.3622

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	6/26/2011	909	909.00	1.04	942.27	156	1.6294%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	117333.9608
5592050	4/4/1998	905	905.00	1.04	938.13	157	1.6399%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	116817.6398
5592050	1/14/1995	902	902.00	1.04	935.02	158	1.6503%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	116430.399
5592050	5/14/2002	897	897.00	1.04	929.83	159	1.6607%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	115784.9977
5592050	3/14/1997	889	889.00	1.04	921.54	160	1.6712%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	114752.3555
5592050	5/28/1995	888	888.00	1.04	920.50	161	1.6816%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	114623.2753
5592050	4/30/1994	882	882.00	1.04	914.29	162	1.6921%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113848.7937
5592050	11/26/1993	871	871.00	1.04	902.88	163	1.7025%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	112428.9108
5592050	6/15/2010	870	870.00	1.04	901.85	164	1.7130%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	112299.8305
5592050	2/17/2011	866	866.00	1.04	897.70	165	1.7234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	111783.5094
5592050	6/8/2015	857	857.00	1.04	888.37	166	1.7339%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	110621.7871
5592050	4/17/2013	855	855.00	1.04	886.30	167	1.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	110363.6265
5592050	2/9/2001	851	851.00	1.04	882.15	168	1.7548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	109847.3055
5592050	5/7/1994	848	848.00	1.04	879.04	169	1.7652%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	109460.0647
5592050	5/23/1998	848	848.00	1.04	879.04	169	1.7652%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	109460.0647
5592050	3/5/1993	845	845.00	1.04	875.93	171	1.7861%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	109072.8239
5592050	1/8/1998	843	843.00	1.04	873.86	172	1.7965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	108814.6633
5592050	4/27/2011	838	838.00	1.04	868.67	173	1.8070%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	108169.262
5592050	9/22/1993	835	835.00	1.04	865.56	174	1.8174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	107782.0212
5592050	5/14/1990	828	828.00	1.04	858.31	175	1.8279%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	106878.4594
5592050	12/24/2008	826	826.00	1.04	856.24	176	1.8383%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	106620.2988
5592050	6/25/2000	823	823.00	1.04	853.13	177	1.8488%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	106233.058
5592050	6/19/1998	818	818.00	1.04	847.94	178	1.8592%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105587.6567
5592050	3/27/2004	817	817.00	1.04	846.91	179	1.8696%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105458.5765
5592050	4/10/1994	803	803.00	1.04	832.39	180	1.8801%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103651.4527
5592050	12/2/1993	802	802.00	1.04	831.36	181	1.8905%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103522.3725
5592050	6/16/1998	802	802.00	1.04	831.36	181	1.8905%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103522.3725
5592050	11/19/2003	800	800.00	1.04	829.28	183	1.9114%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103264.212
5592050	5/9/2013	796	796.00	1.04	825.14	184	1.9219%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	102747.8909
5592050	1/22/1993	789	789.00	1.04	817.88	185	1.9323%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	101844.329
5592050	2/22/2010	789	789.00	1.04	817.88	185	1.9323%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	101844.329

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	4/16/2013	789	789.00	1.04	817.88	185	1.9323%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	101844.329
5592050	11/18/1993	785	785.00	1.04	813.73	188	1.9637%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	101328.008
5592050	1/13/2007	783	783.00	1.04	811.66	189	1.9741%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	101069.8474
5592050	6/14/2010	777	777.00	1.04	805.44	190	1.9845%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	100295.3659
5592050	2/10/2001	776	776.00	1.04	804.41	191	1.9950%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	100166.2856
5592050	8/1/1993	775	775.00	1.04	803.37	192	2.0054%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	100037.2053
5592050	9/25/1993	775	775.00	1.04	803.37	192	2.0054%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	100037.2053
5592050	11/12/1992	769	769.00	1.04	797.15	194	2.0263%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	99262.72374
5592050	3/18/1998	767	767.00	1.04	795.08	195	2.0368%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	99004.56321
5592050	5/26/2013	765	765.00	1.04	793.00	196	2.0472%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	98746.40268
5592050	3/29/2002	764	764.00	1.04	791.97	197	2.0577%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	98617.32242
5592050	5/4/1998	761	761.00	1.04	788.86	198	2.0681%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	98230.08162
5592050	1/24/1999	756	756.00	1.04	783.67	199	2.0785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97584.6803
5592050	5/10/2002	755	755.00	1.04	782.64	200	2.0890%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97455.60003
5592050	9/27/1993	754	754.00	1.04	781.60	201	2.0994%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97326.51977
5592050	5/4/1996	754	754.00	1.04	781.60	201	2.0994%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	97326.51977
5592050	12/1/2004	745	745.00	1.04	772.27	203	2.1203%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	96164.79738
5592050	3/28/2002	736	736.00	1.04	762.94	204	2.1308%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	95003.075
5592050	3/28/2008	733	733.00	1.04	759.83	205	2.1412%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	94615.8342
5592050	6/26/2000	727	727.00	1.04	753.61	206	2.1517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	93841.35261
5592050	3/9/2002	723	723.00	1.04	749.47	207	2.1621%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	93325.03155
5592050	5/29/2002	718	718.00	1.04	744.28	208	2.1726%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	92679.63023
5592050	3/8/1995	717	717.00	1.04	743.25	209	2.1830%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	92550.54996
5592050	1/4/2005	713	713.00	1.04	739.10	210	2.1934%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	92034.2289
5592050	12/29/2008	710	710.00	1.04	735.99	211	2.2039%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	91646.98811
5592050	10/21/1993	706	706.00	1.04	731.84	212	2.2143%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	91130.66705
5592050	2/21/2011	704	704.00	1.04	729.77	213	2.2248%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90872.50652
5592050	10/17/1993	697	697.00	1.04	722.51	214	2.2352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89968.94466
5592050	5/4/2013	693	693.00	1.04	718.37	215	2.2457%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89452.62361
5592050	9/2/2003	692	692.00	1.04	717.33	216	2.2561%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89323.54334
5592050	5/31/2008	690	690.00	1.04	715.26	217	2.2666%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89065.38281

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/16/2011	690	690.00	1.04	715.26	217	2.2666%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89065.38281
5592050	7/6/2000	686	686.00	1.04	711.11	219	2.2874%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	88549.06175
5592050	5/12/1990	683	683.00	1.04	708.00	220	2.2979%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	88161.82096
5592050	4/10/2008	681	681.00	1.04	705.93	221	2.3083%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	87903.66043
5592050	12/26/2009	676	676.00	1.04	700.74	222	2.3188%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	87258.2591
5592050	5/9/2009	672	672.00	1.04	696.60	223	2.3292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	86741.93804
5592050	1/31/2002	669	669.00	1.04	693.49	224	2.3397%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	86354.69725
5592050	2/26/1997	668	668.00	1.04	692.45	225	2.3501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	86225.61698
5592050	1/18/1996	666	666.00	1.04	690.38	226	2.3606%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85967.45645
5592050	5/1/2002	666	666.00	1.04	690.38	226	2.3606%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85967.45645
5592050	6/5/1993	664	664.00	1.04	688.31	228	2.3814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85709.29592
5592050	5/15/2009	663	663.00	1.04	687.27	229	2.3919%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85580.21566
5592050	11/13/1992	662	662.00	1.04	686.23	230	2.4023%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85451.13539
5592050	4/26/1993	661	661.00	1.04	685.20	231	2.4128%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85322.05513
5592050	6/14/2002	660	660.00	1.04	684.16	232	2.4232%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85192.97486
5592050	11/25/2010	659	659.00	1.04	683.12	233	2.4337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85063.8946
5592050	4/23/1996	653	653.00	1.04	676.90	234	2.4441%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	84289.41301
5592050	2/26/2013	649	649.00	1.04	672.76	235	2.4546%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	83773.09195
5592050	4/15/1994	643	643.00	1.04	666.54	236	2.4650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	82998.61036
5592050	3/29/1998	640	640.00	1.04	663.43	237	2.4755%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	82611.36956
5592050	1/23/1993	632	632.00	1.04	655.13	238	2.4859%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81578.72744
5592050	1/12/2005	624	624.00	1.04	646.84	239	2.4963%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80546.08532
5592050	1/16/2007	624	624.00	1.04	646.84	239	2.4963%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80546.08532
5592050	2/25/2011	619	619.00	1.04	641.66	241	2.5172%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	79900.684
5592050	9/26/1993	613	613.00	1.04	635.44	242	2.5277%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	79126.20241
5592050	2/8/2005	611	611.00	1.04	633.37	243	2.5381%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78868.04188
5592050	2/7/2008	611	611.00	1.04	633.37	243	2.5381%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78868.04188
5592050	12/29/2003	610	610.00	1.04	632.33	245	2.5590%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78738.96161
5592050	2/19/2014	610	610.00	1.04	632.33	245	2.5590%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78738.96161
5592050	6/3/1999	607	607.00	1.04	629.22	247	2.5799%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78351.72082
5592050	1/31/2001	606	606.00	1.04	628.18	248	2.5903%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78222.64056

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/17/2009	600	600.00	1.04	621.96	249	2.6008%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77448.15897
5592050	4/16/1999	595	595.00	1.04	616.78	250	2.6112%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76802.75764
5592050	2/5/1991	592	592.00	1.04	613.67	251	2.6217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76415.51685
5592050	7/26/1992	592	592.00	1.04	613.67	251	2.6217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76415.51685
5592050	5/16/1995	592	592.00	1.04	613.67	251	2.6217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76415.51685
5592050	12/3/1993	591	591.00	1.04	612.63	254	2.6530%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76286.43658
5592050	4/29/2002	591	591.00	1.04	612.63	254	2.6530%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76286.43658
5592050	1/9/1998	589	589.00	1.04	610.56	256	2.6739%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76028.27605
5592050	2/26/2007	589	589.00	1.04	610.56	256	2.6739%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76028.27605
5592050	3/9/1998	586	586.00	1.04	607.45	258	2.6948%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	75641.03526
5592050	6/5/1999	586	586.00	1.04	607.45	258	2.6948%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	75641.03526
5592050	4/20/2009	585	585.00	1.04	606.41	260	2.7157%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	75511.95499
5592050	5/1/1994	583	583.00	1.04	604.34	261	2.7261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	75253.79446
5592050	11/10/2000	583	583.00	1.04	604.34	261	2.7261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	75253.79446
5592050	9/14/1993	582	582.00	1.04	603.30	263	2.7470%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	75124.7142
5592050	2/22/2011	582	582.00	1.04	603.30	263	2.7470%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	75124.7142
5592050	5/15/1990	581	581.00	1.04	602.27	265	2.7679%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74995.63393
5592050	5/27/2011	580	580.00	1.04	601.23	266	2.7784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74866.55367
5592050	12/18/2001	568	568.00	1.04	588.79	267	2.7888%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73317.59049
5592050	3/17/1991	567	567.00	1.04	587.75	268	2.7992%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73188.51022
5592050	3/18/1991	566	566.00	1.04	586.72	269	2.8097%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73059.42996
5592050	1/24/2010	565	565.00	1.04	585.68	270	2.8201%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72930.34969
5592050	1/3/2005	564	564.00	1.04	584.64	271	2.8306%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72801.26943
5592050	2/28/1997	556	556.00	1.04	576.35	272	2.8410%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	71768.62731
5592050	5/5/2013	556	556.00	1.04	576.35	272	2.8410%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	71768.62731
5592050	7/22/1993	553	553.00	1.04	573.24	274	2.8619%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	71381.38651
5592050	4/8/2006	552	552.00	1.04	572.21	275	2.8724%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	71252.30625
5592050	1/1/1991	550	550.00	1.04	570.13	276	2.8828%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70994.14572
5592050	2/27/2013	550	550.00	1.04	570.13	276	2.8828%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70994.14572
5592050	6/4/2008	548	548.00	1.04	568.06	278	2.9037%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70735.98519
5592050	6/22/1998	544	544.00	1.04	563.91	279	2.9141%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70219.66413

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	3/3/1993	543	543.00	1.04	562.88	280	2.9246%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70090.58386
5592050	9/4/2010	539	539.00	1.04	558.73	281	2.9350%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69574.2628
5592050	3/13/2016	539	539.00	1.04	558.73	281	2.9350%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69574.2628
5592050	6/23/1998	538	538.00	1.04	557.69	283	2.9559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69445.18254
5592050	3/25/2002	538	538.00	1.04	557.69	283	2.9559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69445.18254
5592050	3/20/2008	538	538.00	1.04	557.69	283	2.9559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69445.18254
5592050	1/14/2007	535	535.00	1.04	554.58	286	2.9873%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69057.94174
5592050	3/9/2011	535	535.00	1.04	554.58	286	2.9873%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69057.94174
5592050	3/31/2008	534	534.00	1.04	553.55	288	3.0081%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68928.86148
5592050	4/20/2013	533	533.00	1.04	552.51	289	3.0186%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68799.78121
5592050	6/4/2001	532	532.00	1.04	551.47	290	3.0290%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68670.70095
5592050	5/2/2012	532	532.00	1.04	551.47	290	3.0290%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68670.70095
5592050	2/6/1991	531	531.00	1.04	550.44	292	3.0499%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68541.62068
5592050	3/10/2006	531	531.00	1.04	550.44	292	3.0499%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68541.62068
5592050	1/19/1995	530	530.00	1.04	549.40	294	3.0708%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68412.54042
5592050	6/7/1990	529	529.00	1.04	548.36	295	3.0813%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68283.46015
5592050	1/7/2005	529	529.00	1.04	548.36	295	3.0813%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68283.46015
5592050	11/19/2009	529	529.00	1.04	548.36	295	3.0813%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68283.46015
5592050	3/4/2004	527	527.00	1.04	546.29	298	3.1126%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68025.29962
5592050	2/22/2007	527	527.00	1.04	546.29	298	3.1126%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68025.29962
5592050	5/13/1995	526	526.00	1.04	545.25	300	3.1335%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67896.21936
5592050	5/10/2003	522	522.00	1.04	541.11	301	3.1439%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67379.8983
5592050	2/26/2011	522	522.00	1.04	541.11	301	3.1439%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67379.8983
5592050	4/17/1999	521	521.00	1.04	540.07	303	3.1648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67250.81803
5592050	11/25/2004	518	518.00	1.04	536.96	304	3.1753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	66863.57724
5592050	1/24/1993	516	516.00	1.04	534.89	305	3.1857%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	66605.41671
5592050	3/13/2006	514	514.00	1.04	532.81	306	3.1962%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	66347.25618
5592050	6/16/2010	514	514.00	1.04	532.81	306	3.1962%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	66347.25618
5592050	6/12/1998	508	508.00	1.04	526.60	308	3.2170%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65572.77459
5592050	5/17/2002	508	508.00	1.04	526.60	308	3.2170%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65572.77459
5592050	4/28/2009	507	507.00	1.04	525.56	310	3.2379%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65443.69433

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	6/7/2008	506	506.00	1.04	524.52	311	3.2484%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65314.61406
5592050	9/13/2008	506	506.00	1.04	524.52	311	3.2484%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65314.61406
5592050	6/12/1994	503	503.00	1.04	521.41	313	3.2693%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64927.37327
5592050	4/1/1996	500	500.00	1.04	518.30	314	3.2797%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64540.13247
5592050	1/22/1997	500	500.00	1.04	518.30	314	3.2797%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64540.13247
5592050	4/4/2014	497	497.00	1.04	515.19	316	3.3006%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64152.89168
5592050	6/21/2015	496	496.00	1.04	514.16	317	3.3111%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64023.81141
5592050	6/18/2015	492	492.00	1.04	510.01	318	3.3215%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63507.49035
5592050	11/22/1992	490	490.00	1.04	507.94	319	3.3319%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63249.32982
5592050	3/23/1991	489	489.00	1.04	506.90	320	3.3424%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63120.24956
5592050	6/4/1993	486	486.00	1.04	503.79	321	3.3528%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	62733.00876
5592050	2/21/2007	486	486.00	1.04	503.79	321	3.3528%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	62733.00876
5592050	2/7/2009	486	486.00	1.04	503.79	321	3.3528%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	62733.00876
5592050	3/3/2008	482	482.00	1.04	499.64	324	3.3842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	62216.6877
5592050	3/29/2004	477	477.00	1.04	494.46	325	3.3946%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61571.28638
5592050	6/18/2009	477	477.00	1.04	494.46	325	3.3946%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61571.28638
5592050	6/21/2000	475	475.00	1.04	492.39	327	3.4155%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61313.12585
5592050	5/16/2002	475	475.00	1.04	492.39	327	3.4155%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61313.12585
5592050	3/6/1993	474	474.00	1.04	491.35	329	3.4364%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61184.04558
5592050	6/21/1990	473	473.00	1.04	490.31	330	3.4468%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61054.96532
5592050	2/21/1997	472	472.00	1.04	489.28	331	3.4573%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60925.88505
5592050	5/13/1999	471	471.00	1.04	488.24	332	3.4677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60796.80479
5592050	3/6/2011	470	470.00	1.04	487.20	333	3.4782%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60667.72452
5592050	1/11/2005	469	469.00	1.04	486.17	334	3.4886%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60538.64426
5592050	3/17/1998	468	468.00	1.04	485.13	335	3.4991%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60409.56399
5592050	2/18/2011	465	465.00	1.04	482.02	336	3.5095%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60022.3232
5592050	2/13/2005	463	463.00	1.04	479.95	337	3.5199%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59764.16267
5592050	4/28/2014	462	462.00	1.04	478.91	338	3.5304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59635.0824
5592050	11/28/2004	458	458.00	1.04	474.76	339	3.5408%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59118.76134
5592050	6/19/2011	457	457.00	1.04	473.73	340	3.5513%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58989.68108
5592050	6/19/2010	452	452.00	1.04	468.55	341	3.5617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58344.27975

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/15/2011	452	452.00	1.04	468.55	341	3.5617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58344.27975
5592050	2/17/2008	450	450.00	1.04	466.47	343	3.5826%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58086.11922
5592050	5/11/2003	449	449.00	1.04	465.44	344	3.5931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	57957.03896
5592050	1/22/2010	449	449.00	1.04	465.44	344	3.5931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	57957.03896
5592050	9/16/1993	447	447.00	1.04	463.36	346	3.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	57698.87843
5592050	4/3/2009	447	447.00	1.04	463.36	346	3.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	57698.87843
5592050	3/1/2011	447	447.00	1.04	463.36	346	3.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	57698.87843
5592050	3/22/1991	442	442.00	1.04	458.18	349	3.6453%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	57053.4771
5592050	9/12/2008	442	442.00	1.04	458.18	349	3.6453%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	57053.4771
5592050	4/22/1996	441	441.00	1.04	457.14	351	3.6662%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56924.39684
5592050	2/7/2005	441	441.00	1.04	457.14	351	3.6662%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56924.39684
5592050	4/24/2002	439	439.00	1.04	455.07	353	3.6871%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56666.23631
5592050	5/18/2002	439	439.00	1.04	455.07	353	3.6871%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56666.23631
5592050	2/20/2004	439	439.00	1.04	455.07	353	3.6871%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56666.23631
5592050	6/16/2015	436	436.00	1.04	451.96	356	3.7184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56278.99551
5592050	7/23/1993	435	435.00	1.04	450.92	357	3.7288%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56149.91525
5592050	5/11/2002	435	435.00	1.04	450.92	357	3.7288%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56149.91525
5592050	12/9/2004	434	434.00	1.04	449.89	359	3.7497%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56020.83498
5592050	4/22/2011	433	433.00	1.04	448.85	360	3.7602%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55891.75472
5592050	4/24/2013	433	433.00	1.04	448.85	360	3.7602%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55891.75472
5592050	3/23/1993	432	432.00	1.04	447.81	362	3.7811%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55762.67446
5592050	4/19/2011	431	431.00	1.04	446.78	363	3.7915%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55633.59419
5592050	7/1/1993	429	429.00	1.04	444.70	364	3.8020%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55375.43366
5592050	6/8/2001	424	424.00	1.04	439.52	365	3.8124%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54730.03234
5592050	10/7/2000	422	422.00	1.04	437.45	366	3.8229%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54471.87181
5592050	3/14/2015	422	422.00	1.04	437.45	366	3.8229%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54471.87181
5592050	12/30/2015	422	422.00	1.04	437.45	366	3.8229%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54471.87181
5592050	11/16/1993	421	421.00	1.04	436.41	369	3.8542%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54342.79154
5592050	4/29/2011	421	421.00	1.04	436.41	369	3.8542%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54342.79154
5592050	2/4/1991	420	420.00	1.04	435.37	371	3.8751%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54213.71128
5592050	1/30/2013	420	420.00	1.04	435.37	371	3.8751%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54213.71128

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/5/1996	419	419.00	1.04	434.34	373	3.8960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54084.63101
5592050	2/24/2007	419	419.00	1.04	434.34	373	3.8960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54084.63101
5592050	9/16/2008	419	419.00	1.04	434.34	373	3.8960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54084.63101
5592050	12/30/2008	418	418.00	1.04	433.30	376	3.9273%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53955.55075
5592050	3/31/1996	417	417.00	1.04	432.26	377	3.9377%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53826.47048
5592050	3/6/2004	417	417.00	1.04	432.26	377	3.9377%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53826.47048
5592050	4/10/2009	415	415.00	1.04	430.19	379	3.9586%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53568.30995
5592050	12/16/1992	414	414.00	1.04	429.15	380	3.9691%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53439.22969
5592050	11/23/1992	412	412.00	1.04	427.08	381	3.9795%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53181.06916
5592050	5/15/2002	412	412.00	1.04	427.08	381	3.9795%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53181.06916
5592050	4/9/2011	412	412.00	1.04	427.08	381	3.9795%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	53181.06916
5592050	3/1/2007	409	409.00	1.04	423.97	384	4.0109%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52793.82836
5592050	4/21/2011	401	401.00	1.04	415.68	385	4.0213%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51761.18624
5592050	6/2/2013	401	401.00	1.04	415.68	385	4.0213%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51761.18624
5592050	1/25/1994	400	400.00	1.04	414.64	387	4.0422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51632.10598
5592050	2/27/2011	400	400.00	1.04	414.64	387	4.0422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51632.10598
5592050	4/23/2011	400	400.00	1.04	414.64	387	4.0422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51632.10598
5592050	6/2/1996	398	398.00	1.04	412.57	390	4.0735%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51373.94545
5592050	5/18/1990	397	397.00	1.04	411.53	391	4.0840%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51244.86518
5592050	9/4/1993	397	397.00	1.04	411.53	391	4.0840%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51244.86518
5592050	6/1/2008	397	397.00	1.04	411.53	391	4.0840%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51244.86518
5592050	5/1/1996	395	395.00	1.04	409.46	394	4.1153%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50986.70465
5592050	4/28/1999	394	394.00	1.04	408.42	395	4.1258%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50857.62439
5592050	3/4/2008	394	394.00	1.04	408.42	395	4.1258%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50857.62439
5592050	6/8/2008	394	394.00	1.04	408.42	395	4.1258%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50857.62439
5592050	11/16/2009	394	394.00	1.04	408.42	395	4.1258%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50857.62439
5592050	7/25/2010	394	394.00	1.04	408.42	395	4.1258%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50857.62439
5592050	2/26/2001	393	393.00	1.04	407.39	400	4.1780%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50728.54412
5592050	11/1/2009	393	393.00	1.04	407.39	400	4.1780%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50728.54412
5592050	6/26/2015	393	393.00	1.04	407.39	400	4.1780%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50728.54412
5592050	1/24/1996	391	391.00	1.04	405.31	403	4.2093%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50470.38359

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	12/5/1993	389	389.00	1.04	403.24	404	4.2198%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50212.22306
5592050	2/15/2005	389	389.00	1.04	403.24	404	4.2198%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50212.22306
5592050	11/26/2010	389	389.00	1.04	403.24	404	4.2198%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50212.22306
5592050	3/10/2002	388	388.00	1.04	402.20	407	4.2511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50083.1428
5592050	11/11/1992	387	387.00	1.04	401.17	408	4.2615%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49954.06253
5592050	11/9/2000	386	386.00	1.04	400.13	409	4.2720%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49824.98227
5592050	7/2/1993	380	380.00	1.04	393.91	410	4.2824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49050.50068
5592050	4/23/2002	380	380.00	1.04	393.91	410	4.2824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49050.50068
5592050	11/27/1993	378	378.00	1.04	391.84	412	4.3033%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48792.34015
5592050	5/2/2009	378	378.00	1.04	391.84	412	4.3033%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48792.34015
5592050	12/23/2009	378	378.00	1.04	391.84	412	4.3033%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48792.34015
5592050	2/18/1998	377	377.00	1.04	390.80	415	4.3347%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48663.25988
5592050	11/30/2004	377	377.00	1.04	390.80	415	4.3347%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48663.25988
5592050	11/30/2010	377	377.00	1.04	390.80	415	4.3347%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48663.25988
5592050	3/10/1997	376	376.00	1.04	389.76	418	4.3660%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48534.17962
5592050	6/15/2011	376	376.00	1.04	389.76	418	4.3660%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48534.17962
5592050	6/13/2014	374	374.00	1.04	387.69	420	4.3869%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48276.01909
5592050	5/11/1995	373	373.00	1.04	386.65	421	4.3973%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48146.93882
5592050	5/12/1996	372	372.00	1.04	385.62	422	4.4078%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48017.85856
5592050	2/17/1998	372	372.00	1.04	385.62	422	4.4078%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48017.85856
5592050	3/22/1998	372	372.00	1.04	385.62	422	4.4078%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48017.85856
5592050	6/24/2000	372	372.00	1.04	385.62	422	4.4078%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	48017.85856
5592050	3/10/2015	371	371.00	1.04	384.58	426	4.4496%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47888.77829
5592050	2/12/1999	370	370.00	1.04	383.54	427	4.4600%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47759.69803
5592050	1/23/1996	368	368.00	1.04	381.47	428	4.4704%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47501.5375
5592050	5/11/2015	368	368.00	1.04	381.47	428	4.4704%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47501.5375
5592050	12/3/1990	365	365.00	1.04	378.36	430	4.4913%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47114.2967
5592050	3/30/2002	363	363.00	1.04	376.29	431	4.5018%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46856.13617
5592050	5/20/1995	360	360.00	1.04	373.18	432	4.5122%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46468.89538
5592050	2/9/1999	360	360.00	1.04	373.18	432	4.5122%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46468.89538
5592050	1/15/1995	359	359.00	1.04	372.14	434	4.5331%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46339.81511

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	4/30/2012	359	359.00	1.04	372.14	434	4.5331%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46339.81511
5592050	5/29/2013	359	359.00	1.04	372.14	434	4.5331%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46339.81511
5592050	4/16/1994	356	356.00	1.04	369.03	437	4.5644%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45952.57432
5592050	2/7/1991	355	355.00	1.04	367.99	438	4.5749%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45823.49405
5592050	6/27/2000	352	352.00	1.04	364.88	439	4.5853%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45436.25326
5592050	5/14/2004	352	352.00	1.04	364.88	439	4.5853%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45436.25326
5592050	6/11/2009	352	352.00	1.04	364.88	439	4.5853%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45436.25326
5592050	4/2/2008	351	351.00	1.04	363.85	442	4.6167%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45307.17299
5592050	12/9/2009	351	351.00	1.04	363.85	442	4.6167%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45307.17299
5592050	3/11/2006	350	350.00	1.04	362.81	444	4.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45178.09273
5592050	1/29/1994	349	349.00	1.04	361.77	445	4.6480%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45049.01246
5592050	1/20/1991	348	348.00	1.04	360.74	446	4.6584%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44919.9322
5592050	4/26/2002	348	348.00	1.04	360.74	446	4.6584%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44919.9322
5592050	5/24/1998	347	347.00	1.04	359.70	448	4.6793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44790.85193
5592050	6/14/1999	346	346.00	1.04	358.67	449	4.6898%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44661.77167
5592050	2/21/2010	346	346.00	1.04	358.67	449	4.6898%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44661.77167
5592050	7/16/1993	345	345.00	1.04	357.63	451	4.7107%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44532.69141
5592050	2/19/2004	344	344.00	1.04	356.59	452	4.7211%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	44403.61114
5592050	6/19/2009	340	340.00	1.04	352.45	453	4.7316%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43887.29008
5592050	2/15/2001	338	338.00	1.04	350.37	454	4.7420%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43629.12955
5592050	1/10/2005	338	338.00	1.04	350.37	454	4.7420%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43629.12955
5592050	1/19/1991	337	337.00	1.04	349.34	456	4.7629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43500.04929
5592050	5/8/1994	337	337.00	1.04	349.34	456	4.7629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43500.04929
5592050	5/7/1996	336	336.00	1.04	348.30	458	4.7838%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43370.96902
5592050	4/3/1998	336	336.00	1.04	348.30	458	4.7838%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43370.96902
5592050	1/17/1991	335	335.00	1.04	347.26	460	4.8047%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43241.88876
5592050	5/31/2013	335	335.00	1.04	347.26	460	4.8047%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43241.88876
5592050	3/14/2016	333	333.00	1.04	345.19	462	4.8256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42983.72823
5592050	8/5/1998	332	332.00	1.04	344.15	463	4.8360%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42854.64796
5592050	4/9/2006	332	332.00	1.04	344.15	463	4.8360%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42854.64796
5592050	3/13/2010	332	332.00	1.04	344.15	463	4.8360%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42854.64796

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/27/2004	331	331.00	1.04	343.12	466	4.8673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42725.5677
5592050	2/23/2007	331	331.00	1.04	343.12	466	4.8673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42725.5677
5592050	12/13/2009	331	331.00	1.04	343.12	466	4.8673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42725.5677
5592050	4/3/2014	330	330.00	1.04	342.08	469	4.8987%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42596.48743
5592050	1/21/2010	329	329.00	1.04	341.04	470	4.9091%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42467.40717
5592050	6/21/2009	328	328.00	1.04	340.01	471	4.9196%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42338.3269
5592050	10/14/2014	328	328.00	1.04	340.01	471	4.9196%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42338.3269
5592050	1/20/1995	327	327.00	1.04	338.97	473	4.9405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42209.24664
5592050	3/28/2004	327	327.00	1.04	338.97	473	4.9405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42209.24664
5592050	2/9/2005	327	327.00	1.04	338.97	473	4.9405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42209.24664
5592050	6/13/2010	324	324.00	1.04	335.86	476	4.9718%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41822.00584
5592050	1/6/1993	323	323.00	1.04	334.82	477	4.9822%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41692.92558
5592050	12/31/2008	323	323.00	1.04	334.82	477	4.9822%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41692.92558
5592050	11/19/1993	322	322.00	1.04	333.79	479	5.0031%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41563.84531
5592050	5/3/2002	322	322.00	1.04	333.79	479	5.0031%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41563.84531
5592050	6/27/2011	322	322.00	1.04	333.79	479	5.0031%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41563.84531
5592050	10/20/1993	321	321.00	1.04	332.75	482	5.0345%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41434.76505
5592050	11/28/1990	319	319.00	1.04	330.68	483	5.0449%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41176.60452
5592050	1/18/2004	319	319.00	1.04	330.68	483	5.0449%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41176.60452
5592050	11/20/2009	319	319.00	1.04	330.68	483	5.0449%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41176.60452
5592050	4/14/1994	318	318.00	1.04	329.64	486	5.0762%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41047.52425
5592050	1/19/1996	318	318.00	1.04	329.64	486	5.0762%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41047.52425
5592050	3/18/2008	318	318.00	1.04	329.64	486	5.0762%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41047.52425
5592050	10/23/2009	317	317.00	1.04	328.60	489	5.1076%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40918.44399
5592050	5/6/1999	316	316.00	1.04	327.57	490	5.1180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40789.36372
5592050	4/9/2015	315	315.00	1.04	326.53	491	5.1285%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40660.28346
5592050	6/13/1999	314	314.00	1.04	325.49	492	5.1389%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40531.20319
5592050	7/12/2014	314	314.00	1.04	325.49	492	5.1389%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40531.20319
5592050	1/1/2011	313	313.00	1.04	324.46	494	5.1598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40402.12293
5592050	4/28/2013	313	313.00	1.04	324.46	494	5.1598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40402.12293
5592050	6/17/1998	312	312.00	1.04	323.42	496	5.1807%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40273.04266

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/2/2002	311	311.00	1.04	322.38	497	5.1911%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40143.9624
5592050	1/25/2010	309	309.00	1.04	320.31	498	5.2016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39885.80187
5592050	11/25/2009	308	308.00	1.04	319.27	499	5.2120%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39756.7216
5592050	3/27/2002	306	306.00	1.04	317.20	500	5.2225%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39498.56107
5592050	8/9/2006	305	305.00	1.04	316.16	501	5.2329%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39369.48081
5592050	12/2/2004	303	303.00	1.04	314.09	502	5.2434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	39111.32028
5592050	4/18/1995	302	302.00	1.04	313.05	503	5.2538%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38982.24001
5592050	1/25/1999	302	302.00	1.04	313.05	503	5.2538%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38982.24001
5592050	12/25/2008	302	302.00	1.04	313.05	503	5.2538%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38982.24001
5592050	6/11/1998	301	301.00	1.04	312.02	506	5.2851%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38853.15975
5592050	2/24/2011	301	301.00	1.04	312.02	506	5.2851%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38853.15975
5592050	2/2/1997	300	300.00	1.04	310.98	508	5.3060%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38724.07948
5592050	1/29/2001	300	300.00	1.04	310.98	508	5.3060%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38724.07948
5592050	4/5/1998	299	299.00	1.04	309.94	510	5.3269%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38594.99922
5592050	12/10/2004	299	299.00	1.04	309.94	510	5.3269%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38594.99922
5592050	2/23/2010	299	299.00	1.04	309.94	510	5.3269%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38594.99922
5592050	1/15/2005	298	298.00	1.04	308.91	513	5.3583%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38465.91895
5592050	4/16/2012	297	297.00	1.04	307.87	514	5.3687%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38336.83869
5592050	9/28/1993	296	296.00	1.04	306.83	515	5.3792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38207.75842
5592050	3/30/2004	296	296.00	1.04	306.83	515	5.3792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38207.75842
5592050	1/11/1991	295	295.00	1.04	305.80	517	5.4000%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38078.67816
5592050	5/29/1996	295	295.00	1.04	305.80	517	5.4000%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38078.67816
5592050	6/14/1998	295	295.00	1.04	305.80	517	5.4000%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38078.67816
5592050	3/7/1993	294	294.00	1.04	304.76	520	5.4314%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37949.59789
5592050	6/18/2011	294	294.00	1.04	304.76	520	5.4314%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37949.59789
5592050	4/18/1999	293	293.00	1.04	303.73	522	5.4523%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37820.51763
5592050	3/3/2002	293	293.00	1.04	303.73	522	5.4523%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37820.51763
5592050	4/1/1993	291	291.00	1.04	301.65	524	5.4732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37562.3571
5592050	3/19/1998	291	291.00	1.04	301.65	524	5.4732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37562.3571
5592050	4/13/2009	291	291.00	1.04	301.65	524	5.4732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37562.3571
5592050	1/26/2012	291	291.00	1.04	301.65	524	5.4732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37562.3571

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/24/1993	288	288.00	1.04	298.54	528	5.5149%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37175.1163
5592050	3/9/1997	288	288.00	1.04	298.54	528	5.5149%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37175.1163
5592050	4/30/2002	288	288.00	1.04	298.54	528	5.5149%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37175.1163
5592050	2/14/2001	287	287.00	1.04	297.51	531	5.5463%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37046.03604
5592050	4/12/2008	287	287.00	1.04	297.51	531	5.5463%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37046.03604
5592050	1/6/2004	286	286.00	1.04	296.47	533	5.5672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36916.95577
5592050	2/13/2009	286	286.00	1.04	296.47	533	5.5672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36916.95577
5592050	1/13/2013	286	286.00	1.04	296.47	533	5.5672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36916.95577
5592050	4/29/2012	284	284.00	1.04	294.40	536	5.5985%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36658.79524
5592050	8/10/1995	283	283.00	1.04	293.36	537	5.6089%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36529.71498
5592050	5/2/2006	283	283.00	1.04	293.36	537	5.6089%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36529.71498
5592050	10/19/2004	281	281.00	1.04	291.29	539	5.6298%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36271.55445
5592050	4/25/2011	281	281.00	1.04	291.29	539	5.6298%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36271.55445
5592050	2/14/1991	280	280.00	1.04	290.25	541	5.6507%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36142.47418
5592050	2/3/1997	280	280.00	1.04	290.25	541	5.6507%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36142.47418
5592050	6/11/2002	280	280.00	1.04	290.25	541	5.6507%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36142.47418
5592050	3/2/2007	280	280.00	1.04	290.25	541	5.6507%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36142.47418
5592050	6/9/1998	279	279.00	1.04	289.21	545	5.6925%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36013.39392
5592050	4/24/2011	278	278.00	1.04	288.18	546	5.7029%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35884.31365
5592050	2/3/1991	277	277.00	1.04	287.14	547	5.7134%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35755.23339
5592050	12/22/2006	276	276.00	1.04	286.10	548	5.7238%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35626.15312
5592050	2/1/1999	275	275.00	1.04	285.07	549	5.7343%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35497.07286
5592050	1/8/2005	274	274.00	1.04	284.03	550	5.7447%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35367.99259
5592050	2/8/2008	274	274.00	1.04	284.03	550	5.7447%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35367.99259
5592050	11/9/1994	273	273.00	1.04	282.99	552	5.7656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35238.91233
5592050	4/10/2006	273	273.00	1.04	282.99	552	5.7656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35238.91233
5592050	4/24/1996	272	272.00	1.04	281.96	554	5.7865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35109.83206
5592050	1/31/1999	272	272.00	1.04	281.96	554	5.7865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	35109.83206
5592050	5/14/1995	271	271.00	1.04	280.92	556	5.8074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34980.7518
5592050	3/26/2002	270	270.00	1.04	279.88	557	5.8178%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34851.67153
5592050	3/29/2008	270	270.00	1.04	279.88	557	5.8178%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34851.67153

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/28/2013	270	270.00	1.04	279.88	557	5.8178%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34851.67153
5592050	5/6/2013	270	270.00	1.04	279.88	557	5.8178%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34851.67153
5592050	2/16/2005	269	269.00	1.04	278.85	561	5.8596%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34722.59127
5592050	12/11/2004	267	267.00	1.04	276.77	562	5.8701%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34464.43074
5592050	6/28/1995	266	266.00	1.04	275.74	563	5.8805%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34335.35047
5592050	2/2/2014	266	266.00	1.04	275.74	563	5.8805%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34335.35047
5592050	5/13/1996	265	265.00	1.04	274.70	565	5.9014%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34206.27021
5592050	6/10/1996	265	265.00	1.04	274.70	565	5.9014%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34206.27021
5592050	1/27/2012	265	265.00	1.04	274.70	565	5.9014%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34206.27021
5592050	12/30/2003	264	264.00	1.04	273.66	568	5.9327%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34077.18994
5592050	5/2/1994	263	263.00	1.04	272.63	569	5.9432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33948.10968
5592050	6/24/1994	263	263.00	1.04	272.63	569	5.9432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33948.10968
5592050	5/8/1998	263	263.00	1.04	272.63	569	5.9432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33948.10968
5592050	5/30/2002	263	263.00	1.04	272.63	569	5.9432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33948.10968
5592050	4/29/2009	263	263.00	1.04	272.63	569	5.9432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33948.10968
5592050	6/21/2010	263	263.00	1.04	272.63	569	5.9432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33948.10968
5592050	12/23/2014	262	262.00	1.04	271.59	575	6.0058%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33819.02941
5592050	12/30/1992	260	260.00	1.04	269.52	576	6.0163%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33560.86888
5592050	3/26/2015	260	260.00	1.04	269.52	576	6.0163%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33560.86888
5592050	2/22/1997	259	259.00	1.04	268.48	578	6.0372%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33431.78862
5592050	3/10/1998	259	259.00	1.04	268.48	578	6.0372%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33431.78862
5592050	12/14/2009	258	258.00	1.04	267.44	580	6.0581%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33302.70836
5592050	3/31/1993	257	257.00	1.04	266.41	581	6.0685%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33173.62809
5592050	5/2/1996	257	257.00	1.04	266.41	581	6.0685%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33173.62809
5592050	5/19/2002	257	257.00	1.04	266.41	581	6.0685%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33173.62809
5592050	5/5/1998	256	256.00	1.04	265.37	584	6.0999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33044.54783
5592050	11/24/2003	256	256.00	1.04	265.37	584	6.0999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33044.54783
5592050	3/8/1998	255	255.00	1.04	264.33	586	6.1207%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32915.46756
5592050	2/9/2008	255	255.00	1.04	264.33	586	6.1207%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32915.46756
5592050	6/4/1999	254	254.00	1.04	263.30	588	6.1416%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32786.3873
5592050	11/21/1994	253	253.00	1.04	262.26	589	6.1521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32657.30703

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	3/1/1997	253	253.00	1.04	262.26	589	6.1521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32657.30703
5592050	6/26/2013	253	253.00	1.04	262.26	589	6.1521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32657.30703
5592050	6/9/2015	253	253.00	1.04	262.26	589	6.1521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32657.30703
5592050	1/15/1991	252	252.00	1.04	261.22	593	6.1939%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32528.22677
5592050	6/15/2002	252	252.00	1.04	261.22	593	6.1939%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32528.22677
5592050	6/29/1995	251	251.00	1.04	260.19	595	6.2147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32399.1465
5592050	1/1/2009	251	251.00	1.04	260.19	595	6.2147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32399.1465
5592050	1/26/1994	250	250.00	1.04	259.15	597	6.2356%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32270.06624
5592050	1/17/1996	250	250.00	1.04	259.15	597	6.2356%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32270.06624
5592050	1/23/1997	250	250.00	1.04	259.15	597	6.2356%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32270.06624
5592050	1/15/2001	250	250.00	1.04	259.15	597	6.2356%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32270.06624
5592050	2/20/2007	248	248.00	1.04	257.08	601	6.2774%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32011.90571
5592050	6/27/2015	248	248.00	1.04	257.08	601	6.2774%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32011.90571
5592050	5/12/1995	246	246.00	1.04	255.00	603	6.2983%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31753.74518
5592050	3/7/2008	246	246.00	1.04	255.00	603	6.2983%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31753.74518
5592050	3/10/2011	246	246.00	1.04	255.00	603	6.2983%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31753.74518
5592050	3/9/2015	246	246.00	1.04	255.00	603	6.2983%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31753.74518
5592050	1/9/2005	245	245.00	1.04	253.97	607	6.3401%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31624.66491
5592050	3/11/2015	245	245.00	1.04	253.97	607	6.3401%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31624.66491
5592050	2/23/1994	244	244.00	1.04	252.93	609	6.3610%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31495.58465
5592050	5/29/1995	244	244.00	1.04	252.93	609	6.3610%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31495.58465
5592050	10/2/2014	243	243.00	1.04	251.89	611	6.3819%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31366.50438
5592050	6/27/2013	242	242.00	1.04	250.86	612	6.3923%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31237.42412
5592050	2/11/1999	241	241.00	1.04	249.82	613	6.4028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31108.34385
5592050	6/9/2001	241	241.00	1.04	249.82	613	6.4028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	31108.34385
5592050	6/3/1996	240	240.00	1.04	248.79	615	6.4236%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30979.26359
5592050	3/2/2002	240	240.00	1.04	248.79	615	6.4236%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30979.26359
5592050	3/21/2008	240	240.00	1.04	248.79	615	6.4236%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30979.26359
5592050	2/23/2011	240	240.00	1.04	248.79	615	6.4236%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30979.26359
5592050	1/18/1991	237	237.00	1.04	245.68	619	6.4654%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30592.02279
5592050	6/21/1995	237	237.00	1.04	245.68	619	6.4654%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30592.02279

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/13/2000	237	237.00	1.04	245.68	619	6.4654%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30592.02279
5592050	3/16/2002	237	237.00	1.04	245.68	619	6.4654%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30592.02279
5592050	4/11/2006	237	237.00	1.04	245.68	619	6.4654%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30592.02279
5592050	5/11/2013	236	236.00	1.04	244.64	624	6.5177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30462.94253
5592050	10/3/2014	236	236.00	1.04	244.64	624	6.5177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30462.94253
5592050	12/31/1992	235	235.00	1.04	243.60	626	6.5385%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30333.86226
5592050	5/7/1998	235	235.00	1.04	243.60	626	6.5385%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30333.86226
5592050	4/21/2013	234	234.00	1.04	242.57	628	6.5594%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30204.782
5592050	6/28/2015	234	234.00	1.04	242.57	628	6.5594%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30204.782
5592050	12/16/2001	233	233.00	1.04	241.53	630	6.5803%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30075.70173
5592050	3/31/2004	233	233.00	1.04	241.53	630	6.5803%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30075.70173
5592050	12/1/2006	233	233.00	1.04	241.53	630	6.5803%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30075.70173
5592050	5/10/2009	233	233.00	1.04	241.53	630	6.5803%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30075.70173
5592050	11/11/2000	232	232.00	1.04	240.49	634	6.6221%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29946.62147
5592050	3/20/2002	232	232.00	1.04	240.49	634	6.6221%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29946.62147
5592050	3/6/2008	232	232.00	1.04	240.49	634	6.6221%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29946.62147
5592050	2/19/2011	232	232.00	1.04	240.49	634	6.6221%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29946.62147
5592050	12/31/2015	232	232.00	1.04	240.49	634	6.6221%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29946.62147
5592050	12/23/2003	231	231.00	1.04	239.46	639	6.6743%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29817.5412
5592050	5/21/1995	230	230.00	1.04	238.42	640	6.6848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29688.46094
5592050	2/8/2009	230	230.00	1.04	238.42	640	6.6848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29688.46094
5592050	11/14/1992	229	229.00	1.04	237.38	642	6.7057%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29559.38067
5592050	4/3/2006	229	229.00	1.04	237.38	642	6.7057%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29559.38067
5592050	5/28/2011	229	229.00	1.04	237.38	642	6.7057%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29559.38067
5592050	6/30/2015	229	229.00	1.04	237.38	642	6.7057%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29559.38067
5592050	2/5/1997	228	228.00	1.04	236.35	646	6.7474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29430.30041
5592050	3/13/2015	228	228.00	1.04	236.35	646	6.7474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29430.30041
5592050	3/15/1997	227	227.00	1.04	235.31	648	6.7683%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29301.22014
5592050	3/30/1998	227	227.00	1.04	235.31	648	6.7683%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29301.22014
5592050	12/12/2004	227	227.00	1.04	235.31	648	6.7683%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29301.22014
5592050	7/18/1993	226	226.00	1.04	234.27	651	6.7997%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29172.13988

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	6/25/2002	226	226.00	1.04	234.27	651	6.7997%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29172.13988
5592050	1/12/1991	225	225.00	1.04	233.24	653	6.8206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29043.05961
5592050	12/19/2001	225	225.00	1.04	233.24	653	6.8206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29043.05961
5592050	12/27/2009	225	225.00	1.04	233.24	653	6.8206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	29043.05961
5592050	5/14/1996	224	224.00	1.04	232.20	656	6.8519%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28913.97935
5592050	2/10/1999	224	224.00	1.04	232.20	656	6.8519%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28913.97935
5592050	5/3/2009	224	224.00	1.04	232.20	656	6.8519%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28913.97935
5592050	5/6/1996	223	223.00	1.04	231.16	659	6.8832%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28784.89908
5592050	4/30/2014	223	223.00	1.04	231.16	659	6.8832%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28784.89908
5592050	6/15/2015	223	223.00	1.04	231.16	659	6.8832%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28784.89908
5592050	2/11/2001	222	222.00	1.04	230.13	662	6.9146%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28655.81882
5592050	2/16/2001	222	222.00	1.04	230.13	662	6.9146%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28655.81882
5592050	4/6/2009	222	222.00	1.04	230.13	662	6.9146%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28655.81882
5592050	6/22/2015	222	222.00	1.04	230.13	662	6.9146%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28655.81882
5592050	1/2/2009	221	221.00	1.04	229.09	666	6.9563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28526.73855
5592050	4/14/2009	221	221.00	1.04	229.09	666	6.9563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28526.73855
5592050	3/7/2011	221	221.00	1.04	229.09	666	6.9563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28526.73855
5592050	4/10/2015	221	221.00	1.04	229.09	666	6.9563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28526.73855
5592050	11/28/1993	220	220.00	1.04	228.05	670	6.9981%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28397.65829
5592050	2/1/2001	220	220.00	1.04	228.05	670	6.9981%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28397.65829
5592050	11/21/2009	220	220.00	1.04	228.05	670	6.9981%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28397.65829
5592050	5/19/1990	219	219.00	1.04	227.02	673	7.0295%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28268.57802
5592050	2/8/1991	219	219.00	1.04	227.02	673	7.0295%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28268.57802
5592050	11/24/2004	219	219.00	1.04	227.02	673	7.0295%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28268.57802
5592050	2/10/2005	219	219.00	1.04	227.02	673	7.0295%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28268.57802
5592050	3/2/2011	219	219.00	1.04	227.02	673	7.0295%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28268.57802
5592050	5/12/2015	219	219.00	1.04	227.02	673	7.0295%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28268.57802
5592050	5/3/1996	218	218.00	1.04	225.98	679	7.0921%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28139.49776
5592050	3/31/2002	218	218.00	1.04	225.98	679	7.0921%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28139.49776
5592050	6/5/2008	218	218.00	1.04	225.98	679	7.0921%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28139.49776
5592050	4/20/1995	217	217.00	1.04	224.94	682	7.1235%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28010.41749

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	6/7/1997	217	217.00	1.04	224.94	682	7.1235%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28010.41749
5592050	2/4/2008	217	217.00	1.04	224.94	682	7.1235%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	28010.41749
5592050	6/20/2010	216	216.00	1.04	223.91	685	7.1548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27881.33723
5592050	5/3/2013	216	216.00	1.04	223.91	685	7.1548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27881.33723
5592050	3/8/2015	216	216.00	1.04	223.91	685	7.1548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27881.33723
5592050	1/25/1993	215	215.00	1.04	222.87	688	7.1861%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27752.25696
5592050	3/14/2010	215	215.00	1.04	222.87	688	7.1861%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27752.25696
5592050	2/20/2011	215	215.00	1.04	222.87	688	7.1861%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27752.25696
5592050	3/23/1998	214	214.00	1.04	221.83	691	7.2175%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27623.1767
5592050	6/30/1998	214	214.00	1.04	221.83	691	7.2175%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27623.1767
5592050	7/7/1998	214	214.00	1.04	221.83	691	7.2175%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27623.1767
5592050	11/26/2000	214	214.00	1.04	221.83	691	7.2175%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27623.1767
5592050	3/2/1997	213	213.00	1.04	220.80	695	7.2592%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27494.09643
5592050	6/18/1998	213	213.00	1.04	220.80	695	7.2592%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27494.09643
5592050	12/6/1993	212	212.00	1.04	219.76	697	7.2801%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27365.01617
5592050	4/15/1998	212	212.00	1.04	219.76	697	7.2801%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27365.01617
5592050	6/15/1998	212	212.00	1.04	219.76	697	7.2801%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27365.01617
5592050	1/17/2007	212	212.00	1.04	219.76	697	7.2801%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27365.01617
5592050	1/23/2010	212	212.00	1.04	219.76	697	7.2801%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27365.01617
5592050	4/2/1996	211	211.00	1.04	218.72	702	7.3324%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27235.9359
5592050	2/27/2001	211	211.00	1.04	218.72	702	7.3324%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27235.9359
5592050	11/26/2004	211	211.00	1.04	218.72	702	7.3324%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27235.9359
5592050	4/25/2013	211	211.00	1.04	218.72	702	7.3324%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27235.9359
5592050	12/24/2015	211	211.00	1.04	218.72	702	7.3324%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27235.9359
5592050	4/13/2002	210	210.00	1.04	217.69	707	7.3846%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27106.85564
5592050	11/20/2003	210	210.00	1.04	217.69	707	7.3846%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27106.85564
5592050	1/4/2009	210	210.00	1.04	217.69	707	7.3846%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27106.85564
5592050	12/24/2014	210	210.00	1.04	217.69	707	7.3846%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	27106.85564
5592050	4/18/1992	209	209.00	1.04	216.65	711	7.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26977.77537
5592050	7/20/1993	209	209.00	1.04	216.65	711	7.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26977.77537
5592050	3/9/1995	209	209.00	1.04	216.65	711	7.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26977.77537

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	6/1/1999	209	209.00	1.04	216.65	711	7.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26977.77537
5592050	4/9/2002	209	209.00	1.04	216.65	711	7.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26977.77537
5592050	5/4/2002	209	209.00	1.04	216.65	711	7.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26977.77537
5592050	4/30/2011	209	209.00	1.04	216.65	711	7.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26977.77537
5592050	6/9/1996	208	208.00	1.04	215.61	718	7.4995%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26848.69511
5592050	6/24/1998	207	207.00	1.04	214.58	719	7.5099%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26719.61484
5592050	1/5/2009	207	207.00	1.04	214.58	719	7.5099%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26719.61484
5592050	11/20/1993	206	206.00	1.04	213.54	721	7.5308%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26590.53458
5592050	5/1/2006	206	206.00	1.04	213.54	721	7.5308%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26590.53458
5592050	12/31/2010	206	206.00	1.04	213.54	721	7.5308%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26590.53458
5592050	4/11/2011	206	206.00	1.04	213.54	721	7.5308%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26590.53458
5592050	3/1/2013	206	206.00	1.04	213.54	721	7.5308%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26590.53458
5592050	12/15/1992	205	205.00	1.04	212.50	726	7.5830%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26461.45431
5592050	4/16/1998	205	205.00	1.04	212.50	726	7.5830%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26461.45431
5592050	4/19/2009	205	205.00	1.04	212.50	726	7.5830%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26461.45431
5592050	4/21/2009	205	205.00	1.04	212.50	726	7.5830%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26461.45431
5592050	3/7/2004	204	204.00	1.04	211.47	730	7.6248%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26332.37405
5592050	3/8/1993	203	203.00	1.04	210.43	731	7.6353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26203.29378
5592050	4/15/1999	203	203.00	1.04	210.43	731	7.6353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26203.29378
5592050	4/3/2008	203	203.00	1.04	210.43	731	7.6353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26203.29378
5592050	3/11/2010	203	203.00	1.04	210.43	731	7.6353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26203.29378
5592050	3/29/2010	203	203.00	1.04	210.43	731	7.6353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26203.29378
5592050	4/12/2006	202	202.00	1.04	209.39	736	7.6875%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26074.21352
5592050	6/17/2010	202	202.00	1.04	209.39	736	7.6875%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26074.21352
5592050	2/14/2011	202	202.00	1.04	209.39	736	7.6875%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	26074.21352
5592050	4/15/1991	201	201.00	1.04	208.36	739	7.7188%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25945.13325
5592050	10/22/1993	201	201.00	1.04	208.36	739	7.7188%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25945.13325
5592050	5/20/2002	201	201.00	1.04	208.36	739	7.7188%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25945.13325
5592050	4/27/1993	200	200.00	1.04	207.32	742	7.7502%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25816.05299
5592050	10/18/1993	200	200.00	1.04	207.32	742	7.7502%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25816.05299
5592050	1/16/1995	200	200.00	1.04	207.32	742	7.7502%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25816.05299

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	4/29/1999	200	200.00	1.04	207.32	742	7.7502%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25816.05299
5592050	2/14/2007	200	200.00	1.04	207.32	742	7.7502%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25816.05299
5592050	5/18/2009	200	200.00	1.04	207.32	742	7.7502%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25816.05299
5592050	2/20/2002	199	199.00	1.04	206.28	748	7.8128%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25686.97272
5592050	12/13/2004	199	199.00	1.04	206.28	748	7.8128%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25686.97272
5592050	2/18/2008	199	199.00	1.04	206.28	748	7.8128%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25686.97272
5592050	1/3/2009	199	199.00	1.04	206.28	748	7.8128%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25686.97272
5592050	1/6/2009	199	199.00	1.04	206.28	748	7.8128%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25686.97272
5592050	4/15/1993	198	198.00	1.04	205.25	753	7.8651%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25557.89246
5592050	5/15/1996	198	198.00	1.04	205.25	753	7.8651%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25557.89246
5592050	11/30/2001	198	198.00	1.04	205.25	753	7.8651%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25557.89246
5592050	12/23/1990	197	197.00	1.04	204.21	756	7.8964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25428.81219
5592050	4/17/1994	197	197.00	1.04	204.21	756	7.8964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25428.81219
5592050	11/29/2004	197	197.00	1.04	204.21	756	7.8964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25428.81219
5592050	2/14/2009	197	197.00	1.04	204.21	756	7.8964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25428.81219
5592050	7/20/2010	197	197.00	1.04	204.21	756	7.8964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25428.81219
5592050	6/3/2013	197	197.00	1.04	204.21	756	7.8964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25428.81219
5592050	5/3/1994	196	196.00	1.04	203.17	762	7.9591%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25299.73193
5592050	3/13/1997	196	196.00	1.04	203.17	762	7.9591%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25299.73193
5592050	5/7/1999	196	196.00	1.04	203.17	762	7.9591%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25299.73193
5592050	11/2/2004	196	196.00	1.04	203.17	762	7.9591%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25299.73193
5592050	3/5/2008	196	196.00	1.04	203.17	762	7.9591%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25299.73193
5592050	4/19/1999	195	195.00	1.04	202.14	767	8.0113%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25170.65166
5592050	6/16/2002	195	195.00	1.04	202.14	767	8.0113%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25170.65166
5592050	1/1/2007	195	195.00	1.04	202.14	767	8.0113%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25170.65166
5592050	4/10/2011	195	195.00	1.04	202.14	767	8.0113%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25170.65166
5592050	2/21/2004	194	194.00	1.04	201.10	771	8.0531%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25041.5714
5592050	6/3/2008	194	194.00	1.04	201.10	771	8.0531%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25041.5714
5592050	6/20/2011	194	194.00	1.04	201.10	771	8.0531%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	25041.5714
5592050	3/14/2006	193	193.00	1.04	200.06	774	8.0844%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24912.49113
5592050	11/2/2009	193	193.00	1.04	200.06	774	8.0844%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24912.49113

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	3/12/2014	193	193.00	1.04	200.06	774	8.0844%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24912.49113
5592050	5/30/1996	192	192.00	1.04	199.03	777	8.1157%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24783.41087
5592050	4/11/2009	192	192.00	1.04	199.03	777	8.1157%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24783.41087
5592050	2/22/2014	192	192.00	1.04	199.03	777	8.1157%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24783.41087
5592050	2/10/1991	191	191.00	1.04	197.99	780	8.1471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24654.3306
5592050	6/1/1996	191	191.00	1.04	197.99	780	8.1471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24654.3306
5592050	1/10/1998	191	191.00	1.04	197.99	780	8.1471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24654.3306
5592050	3/15/2007	191	191.00	1.04	197.99	780	8.1471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24654.3306
5592050	11/26/2009	191	191.00	1.04	197.99	780	8.1471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24654.3306
5592050	1/26/1999	190	190.00	1.04	196.95	785	8.1993%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24525.25034
5592050	2/11/2013	190	190.00	1.04	196.95	785	8.1993%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24525.25034
5592050	4/17/1995	189	189.00	1.04	195.92	787	8.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24396.17007
5592050	3/31/1998	189	189.00	1.04	195.92	787	8.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24396.17007
5592050	10/8/2000	189	189.00	1.04	195.92	787	8.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24396.17007
5592050	12/15/2009	189	189.00	1.04	195.92	787	8.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24396.17007
5592050	4/29/2013	189	189.00	1.04	195.92	787	8.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24396.17007
5592050	2/24/2001	188	188.00	1.04	194.88	792	8.2724%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24267.08981
5592050	6/10/2008	188	188.00	1.04	194.88	792	8.2724%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24267.08981
5592050	12/6/2014	188	188.00	1.04	194.88	792	8.2724%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24267.08981
5592050	1/4/2015	188	188.00	1.04	194.88	792	8.2724%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24267.08981
5592050	3/19/1991	187	187.00	1.04	193.85	796	8.3142%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24138.00954
5592050	6/7/1996	187	187.00	1.04	193.85	796	8.3142%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24138.00954
5592050	11/27/2010	187	187.00	1.04	193.85	796	8.3142%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24138.00954
5592050	2/19/1998	186	186.00	1.04	192.81	799	8.3455%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24008.92928
5592050	6/6/1999	186	186.00	1.04	192.81	799	8.3455%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24008.92928
5592050	3/11/2002	186	186.00	1.04	192.81	799	8.3455%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24008.92928
5592050	3/27/2008	186	186.00	1.04	192.81	799	8.3455%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24008.92928
5592050	7/9/2008	186	186.00	1.04	192.81	799	8.3455%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24008.92928
5592050	5/30/2013	186	186.00	1.04	192.81	799	8.3455%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24008.92928
5592050	6/17/2015	186	186.00	1.04	192.81	799	8.3455%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	24008.92928
5592050	2/2/1999	185	185.00	1.04	191.77	806	8.4186%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23879.84901

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/3/2002	185	185.00	1.04	191.77	806	8.4186%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23879.84901
5592050	5/31/2002	185	185.00	1.04	191.77	806	8.4186%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23879.84901
5592050	2/9/1991	184	184.00	1.04	190.74	809	8.4500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23750.76875
5592050	11/24/1992	184	184.00	1.04	190.74	809	8.4500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23750.76875
5592050	1/13/1995	184	184.00	1.04	190.74	809	8.4500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23750.76875
5592050	4/25/1996	184	184.00	1.04	190.74	809	8.4500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23750.76875
5592050	4/6/1998	184	184.00	1.04	190.74	809	8.4500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23750.76875
5592050	5/25/1998	184	184.00	1.04	190.74	809	8.4500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23750.76875
5592050	3/30/2008	184	184.00	1.04	190.74	809	8.4500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23750.76875
5592050	12/1/2010	184	184.00	1.04	190.74	809	8.4500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23750.76875
5592050	3/15/2015	184	184.00	1.04	190.74	809	8.4500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23750.76875
5592050	3/15/2016	184	184.00	1.04	190.74	809	8.4500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23750.76875
5592050	4/1/1998	183	183.00	1.04	189.70	819	8.5544%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23621.68848
5592050	6/10/2001	183	183.00	1.04	189.70	819	8.5544%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23621.68848
5592050	12/18/2004	183	183.00	1.04	189.70	819	8.5544%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23621.68848
5592050	5/25/2006	183	183.00	1.04	189.70	819	8.5544%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23621.68848
5592050	4/4/2009	183	183.00	1.04	189.70	819	8.5544%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23621.68848
5592050	4/7/2009	183	183.00	1.04	189.70	819	8.5544%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23621.68848
5592050	3/12/2015	183	183.00	1.04	189.70	819	8.5544%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23621.68848
5592050	4/13/2006	182	182.00	1.04	188.66	826	8.6275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23492.60822
5592050	4/8/2002	181	181.00	1.04	187.63	827	8.6380%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23363.52795
5592050	12/25/2014	181	181.00	1.04	187.63	827	8.6380%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23363.52795
5592050	12/17/2004	180	180.00	1.04	186.59	829	8.6589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23234.44769
5592050	4/13/2008	180	180.00	1.04	186.59	829	8.6589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23234.44769
5592050	6/16/2011	180	180.00	1.04	186.59	829	8.6589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23234.44769
5592050	5/3/2012	180	180.00	1.04	186.59	829	8.6589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23234.44769
5592050	7/17/1993	179	179.00	1.04	185.55	833	8.7006%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23105.36742
5592050	2/6/2005	179	179.00	1.04	185.55	833	8.7006%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23105.36742
5592050	1/7/2009	179	179.00	1.04	185.55	833	8.7006%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	23105.36742
5592050	1/5/2007	178	178.00	1.04	184.52	836	8.7320%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22976.28716
5592050	2/10/2008	178	178.00	1.04	184.52	836	8.7320%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22976.28716

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	6/20/1998	177	177.00	1.04	183.48	838	8.7529%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22847.20689
5592050	2/13/1999	177	177.00	1.04	183.48	838	8.7529%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22847.20689
5592050	4/14/2006	177	177.00	1.04	183.48	838	8.7529%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22847.20689
5592050	12/3/2009	177	177.00	1.04	183.48	838	8.7529%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22847.20689
5592050	3/12/2010	177	177.00	1.04	183.48	838	8.7529%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22847.20689
5592050	6/26/2010	177	177.00	1.04	183.48	838	8.7529%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22847.20689
5592050	6/14/1994	176	176.00	1.04	182.44	844	8.8155%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22718.12663
5592050	3/8/2011	176	176.00	1.04	182.44	844	8.8155%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22718.12663
5592050	12/18/1990	175	175.00	1.04	181.41	846	8.8364%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22589.04636
5592050	9/29/1993	175	175.00	1.04	181.41	846	8.8364%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22589.04636
5592050	5/12/1994	175	175.00	1.04	181.41	846	8.8364%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22589.04636
5592050	1/16/2005	175	175.00	1.04	181.41	846	8.8364%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22589.04636
5592050	2/6/2009	175	175.00	1.04	181.41	846	8.8364%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22589.04636
5592050	11/22/2009	175	175.00	1.04	181.41	846	8.8364%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22589.04636
5592050	1/26/2010	175	175.00	1.04	181.41	846	8.8364%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22589.04636
5592050	1/1/2016	175	175.00	1.04	181.41	846	8.8364%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22589.04636
5592050	2/24/2010	174	174.00	1.04	180.37	854	8.9200%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22459.9661
5592050	5/4/2012	174	174.00	1.04	180.37	854	8.9200%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22459.9661
5592050	1/7/1993	173	173.00	1.04	179.33	856	8.9409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22330.88584
5592050	7/31/1993	173	173.00	1.04	179.33	856	8.9409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22330.88584
5592050	11/14/2000	173	173.00	1.04	179.33	856	8.9409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22330.88584
5592050	6/10/2009	173	173.00	1.04	179.33	856	8.9409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22330.88584
5592050	5/14/1999	172	172.00	1.04	178.30	860	8.9827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22201.80557
5592050	2/17/2005	172	172.00	1.04	178.30	860	8.9827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22201.80557
5592050	5/22/1995	171	171.00	1.04	177.26	862	9.0036%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22072.72531
5592050	5/6/1998	171	171.00	1.04	177.26	862	9.0036%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22072.72531
5592050	7/8/2011	171	171.00	1.04	177.26	862	9.0036%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22072.72531
5592050	4/5/2014	171	171.00	1.04	177.26	862	9.0036%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	22072.72531
5592050	9/17/1993	170	170.00	1.04	176.22	866	9.0453%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21943.64504
5592050	5/16/1996	170	170.00	1.04	176.22	866	9.0453%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21943.64504
5592050	1/18/1999	170	170.00	1.04	176.22	866	9.0453%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21943.64504

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	1/27/1999	170	170.00	1.04	176.22	866	9.0453%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21943.64504
5592050	6/12/2009	170	170.00	1.04	176.22	866	9.0453%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21943.64504
5592050	1/31/2013	170	170.00	1.04	176.22	866	9.0453%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21943.64504
5592050	5/20/1990	169	169.00	1.04	175.19	872	9.1080%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21814.56478
5592050	12/17/1992	169	169.00	1.04	175.19	872	9.1080%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21814.56478
5592050	12/3/2004	169	169.00	1.04	175.19	872	9.1080%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21814.56478
5592050	5/11/2006	169	169.00	1.04	175.19	872	9.1080%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21814.56478
5592050	3/11/2011	169	169.00	1.04	175.19	872	9.1080%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21814.56478
5592050	3/24/1993	168	168.00	1.04	174.15	877	9.1602%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21685.48451
5592050	5/9/1994	168	168.00	1.04	174.15	877	9.1602%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21685.48451
5592050	5/15/1995	168	168.00	1.04	174.15	877	9.1602%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21685.48451
5592050	8/4/1995	168	168.00	1.04	174.15	877	9.1602%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21685.48451
5592050	12/31/2006	168	168.00	1.04	174.15	877	9.1602%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21685.48451
5592050	4/15/2007	168	168.00	1.04	174.15	877	9.1602%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21685.48451
5592050	3/3/2011	168	168.00	1.04	174.15	877	9.1602%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21685.48451
5592050	6/8/2014	168	168.00	1.04	174.15	877	9.1602%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21685.48451
5592050	12/21/2004	167	167.00	1.04	173.11	885	9.2438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21556.40425
5592050	12/23/2006	167	167.00	1.04	173.11	885	9.2438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21556.40425
5592050	2/16/2008	167	167.00	1.04	173.11	885	9.2438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21556.40425
5592050	12/20/2008	167	167.00	1.04	173.11	885	9.2438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21556.40425
5592050	5/21/2002	166	166.00	1.04	172.08	889	9.2856%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21427.32398
5592050	4/30/2006	166	166.00	1.04	172.08	889	9.2856%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21427.32398
5592050	11/29/1993	165	165.00	1.04	171.04	891	9.3065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21298.24372
5592050	8/5/2000	165	165.00	1.04	171.04	891	9.3065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21298.24372
5592050	4/15/2006	165	165.00	1.04	171.04	891	9.3065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21298.24372
5592050	4/4/2008	165	165.00	1.04	171.04	891	9.3065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21298.24372
5592050	12/23/2015	165	165.00	1.04	171.04	891	9.3065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21298.24372
5592050	4/1/2004	164	164.00	1.04	170.00	896	9.3587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21169.16345
5592050	3/22/2008	164	164.00	1.04	170.00	896	9.3587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21169.16345
5592050	12/12/2010	164	164.00	1.04	170.00	896	9.3587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21169.16345
5592050	5/29/2011	164	164.00	1.04	170.00	896	9.3587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21169.16345

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	4/22/2013	164	164.00	1.04	170.00	896	9.3587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21169.16345
5592050	6/8/1997	163	163.00	1.04	168.97	901	9.4109%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21040.08319
5592050	5/12/1999	163	163.00	1.04	168.97	901	9.4109%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21040.08319
5592050	11/24/2009	163	163.00	1.04	168.97	901	9.4109%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	21040.08319
5592050	2/23/1990	162	162.00	1.04	167.93	904	9.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20911.00292
5592050	2/8/2001	162	162.00	1.04	167.93	904	9.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20911.00292
5592050	7/9/2004	162	162.00	1.04	167.93	904	9.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20911.00292
5592050	5/4/2009	162	162.00	1.04	167.93	904	9.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20911.00292
5592050	11/21/1993	161	161.00	1.04	166.89	908	9.4840%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20781.92266
5592050	4/11/2001	161	161.00	1.04	166.89	908	9.4840%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20781.92266
5592050	5/7/2013	161	161.00	1.04	166.89	908	9.4840%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20781.92266
5592050	3/24/1991	160	160.00	1.04	165.86	911	9.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20652.84239
5592050	6/22/1995	160	160.00	1.04	165.86	911	9.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20652.84239
5592050	1/21/1999	160	160.00	1.04	165.86	911	9.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20652.84239
5592050	11/12/2000	160	160.00	1.04	165.86	911	9.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20652.84239
5592050	4/1/2002	160	160.00	1.04	165.86	911	9.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20652.84239
5592050	5/5/2002	160	160.00	1.04	165.86	911	9.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20652.84239
5592050	5/11/2009	160	160.00	1.04	165.86	911	9.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20652.84239
5592050	6/12/2014	160	160.00	1.04	165.86	911	9.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20652.84239
5592050	3/10/1995	159	159.00	1.04	164.82	919	9.5989%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20523.76213
5592050	3/24/1998	159	159.00	1.04	164.82	919	9.5989%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20523.76213
5592050	7/22/2013	159	159.00	1.04	164.82	919	9.5989%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20523.76213
5592050	1/30/1994	158	158.00	1.04	163.78	922	9.6302%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20394.68186
5592050	12/24/2003	158	158.00	1.04	163.78	922	9.6302%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20394.68186
5592050	3/8/2008	158	158.00	1.04	163.78	922	9.6302%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20394.68186
5592050	2/22/1990	157	157.00	1.04	162.75	925	9.6616%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20265.6016
5592050	8/5/1995	157	157.00	1.04	162.75	925	9.6616%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20265.6016
5592050	5/27/2000	157	157.00	1.04	162.75	925	9.6616%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20265.6016
5592050	3/2/2013	157	157.00	1.04	162.75	925	9.6616%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20265.6016
5592050	9/2/1993	156	156.00	1.04	161.71	929	9.7034%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20136.52133
5592050	11/25/1993	156	156.00	1.04	161.71	929	9.7034%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20136.52133

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/4/1994	156	156.00	1.04	161.71	929	9.7034%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20136.52133
5592050	4/30/1998	156	156.00	1.04	161.71	929	9.7034%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20136.52133
5592050	2/1/2014	156	156.00	1.04	161.71	929	9.7034%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20136.52133
5592050	3/27/2015	156	156.00	1.04	161.71	929	9.7034%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20136.52133
5592050	4/18/1994	155	155.00	1.04	160.67	935	9.7660%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20007.44107
5592050	12/14/2004	155	155.00	1.04	160.67	935	9.7660%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20007.44107
5592050	12/19/2004	155	155.00	1.04	160.67	935	9.7660%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	20007.44107
5592050	1/26/1993	154	154.00	1.04	159.64	938	9.7974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19878.3608
5592050	1/21/1995	154	154.00	1.04	159.64	938	9.7974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19878.3608
5592050	4/21/1995	154	154.00	1.04	159.64	938	9.7974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19878.3608
5592050	6/10/1998	154	154.00	1.04	159.64	938	9.7974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19878.3608
5592050	2/27/2007	154	154.00	1.04	159.64	938	9.7974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19878.3608
5592050	4/15/2012	154	154.00	1.04	159.64	938	9.7974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19878.3608
5592050	5/9/1998	153	153.00	1.04	158.60	944	9.8600%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19749.28054
5592050	2/12/2001	153	153.00	1.04	158.60	944	9.8600%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19749.28054
5592050	5/11/2008	153	153.00	1.04	158.60	944	9.8600%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19749.28054
5592050	7/7/2011	153	153.00	1.04	158.60	944	9.8600%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19749.28054
5592050	6/9/1994	152	152.00	1.04	157.56	948	9.9018%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19620.20027
5592050	5/17/1996	152	152.00	1.04	157.56	948	9.9018%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19620.20027
5592050	4/27/1999	152	152.00	1.04	157.56	948	9.9018%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19620.20027
5592050	6/27/2007	152	152.00	1.04	157.56	948	9.9018%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19620.20027
5592050	12/28/2009	152	152.00	1.04	157.56	948	9.9018%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19620.20027
5592050	4/23/2013	152	152.00	1.04	157.56	948	9.9018%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19620.20027
5592050	7/3/1993	151	151.00	1.04	156.53	954	9.9645%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19491.12001
5592050	12/7/1993	151	151.00	1.04	156.53	954	9.9645%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19491.12001
5592050	3/25/1996	151	151.00	1.04	156.53	954	9.9645%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19491.12001
5592050	2/20/1998	151	151.00	1.04	156.53	954	9.9645%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19491.12001
5592050	9/4/2008	151	151.00	1.04	156.53	954	9.9645%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19491.12001
5592050	5/27/2009	151	151.00	1.04	156.53	954	9.9645%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19491.12001
5592050	6/16/2009	151	151.00	1.04	156.53	954	9.9645%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19491.12001
5592050	5/1/2011	151	151.00	1.04	156.53	954	9.9645%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19491.12001

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	3/28/2013	151	151.00	1.04	156.53	954	9.9645%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19491.12001
5592050	10/15/2014	151	151.00	1.04	156.53	954	9.9645%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19491.12001
5592050	12/4/1990	150	150.00	1.04	155.49	964	10.0689%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19362.03974
5592050	1/21/1991	150	150.00	1.04	155.49	964	10.0689%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19362.03974
5592050	5/27/1995	150	150.00	1.04	155.49	964	10.0689%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19362.03974
5592050	2/20/1997	150	150.00	1.04	155.49	964	10.0689%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19362.03974
5592050	3/3/1997	150	150.00	1.04	155.49	964	10.0689%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19362.03974
5592050	4/16/2006	150	150.00	1.04	155.49	964	10.0689%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19362.03974
5592050	4/17/2006	150	150.00	1.04	155.49	964	10.0689%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19362.03974
5592050	5/18/2010	150	150.00	1.04	155.49	964	10.0689%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19362.03974
5592050	4/11/2013	150	150.00	1.04	155.49	964	10.0689%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19362.03974
5592050	2/13/1991	149	149.00	1.04	154.45	973	10.1629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19232.95948
5592050	2/28/2001	149	149.00	1.04	154.45	973	10.1629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19232.95948
5592050	12/15/2001	149	149.00	1.04	154.45	973	10.1629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19232.95948
5592050	6/14/2003	149	149.00	1.04	154.45	973	10.1629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19232.95948
5592050	5/15/2004	149	149.00	1.04	154.45	973	10.1629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19232.95948
5592050	2/10/2009	149	149.00	1.04	154.45	973	10.1629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19232.95948
5592050	3/28/2010	149	149.00	1.04	154.45	973	10.1629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19232.95948
5592050	11/10/1994	148	148.00	1.04	153.42	980	10.2361%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19103.87921
5592050	5/30/1995	148	148.00	1.04	153.42	980	10.2361%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19103.87921
5592050	5/31/1996	148	148.00	1.04	153.42	980	10.2361%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19103.87921
5592050	6/29/1998	148	148.00	1.04	153.42	980	10.2361%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19103.87921
5592050	1/18/2007	148	148.00	1.04	153.42	980	10.2361%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19103.87921
5592050	6/26/2007	148	148.00	1.04	153.42	980	10.2361%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19103.87921
5592050	6/9/2008	148	148.00	1.04	153.42	980	10.2361%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19103.87921
5592050	3/4/2011	148	148.00	1.04	153.42	980	10.2361%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	19103.87921
5592050	3/11/1997	147	147.00	1.04	152.38	988	10.3196%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18974.79895
5592050	6/21/1998	147	147.00	1.04	152.38	988	10.3196%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18974.79895
5592050	2/4/2012	147	147.00	1.04	152.38	988	10.3196%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18974.79895
5592050	6/22/1990	146	146.00	1.04	151.34	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18845.71868
5592050	1/17/1995	146	146.00	1.04	151.34	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18845.71868

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	4/20/1999	146	146.00	1.04	151.34	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18845.71868
5592050	3/21/2002	146	146.00	1.04	151.34	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18845.71868
5592050	5/22/2002	146	146.00	1.04	151.34	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18845.71868
5592050	3/24/2007	146	146.00	1.04	151.34	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18845.71868
5592050	1/8/2009	146	146.00	1.04	151.34	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18845.71868
5592050	11/23/2009	146	146.00	1.04	151.34	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18845.71868
5592050	11/27/2009	146	146.00	1.04	151.34	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18845.71868
5592050	1/28/2012	146	146.00	1.04	151.34	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18845.71868
5592050	5/1/2014	146	146.00	1.04	151.34	991	10.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18845.71868
5592050	11/15/1992	145	145.00	1.04	150.31	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18716.63842
5592050	4/7/1998	145	145.00	1.04	150.31	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18716.63842
5592050	2/2/2001	145	145.00	1.04	150.31	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18716.63842
5592050	6/11/2001	145	145.00	1.04	150.31	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18716.63842
5592050	3/12/2002	145	145.00	1.04	150.31	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18716.63842
5592050	3/17/2002	145	145.00	1.04	150.31	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18716.63842
5592050	6/17/2002	145	145.00	1.04	150.31	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18716.63842
5592050	12/16/2004	145	145.00	1.04	150.31	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18716.63842
5592050	6/2/2008	145	145.00	1.04	150.31	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18716.63842
5592050	4/5/2009	145	145.00	1.04	150.31	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18716.63842
5592050	1/2/2016	145	145.00	1.04	150.31	1002	10.4658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18716.63842
5592050	4/16/1992	144	144.00	1.04	149.27	1013	10.5807%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18587.55815
5592050	6/1/2002	144	144.00	1.04	149.27	1013	10.5807%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18587.55815
5592050	4/2/2009	144	144.00	1.04	149.27	1013	10.5807%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18587.55815
5592050	4/15/2009	144	144.00	1.04	149.27	1013	10.5807%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18587.55815
5592050	12/10/2009	144	144.00	1.04	149.27	1013	10.5807%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18587.55815
5592050	1/2/2011	144	144.00	1.04	149.27	1013	10.5807%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18587.55815
5592050	6/23/2015	144	144.00	1.04	149.27	1013	10.5807%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18587.55815
5592050	3/9/1993	143	143.00	1.04	148.23	1020	10.6539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18458.47789
5592050	10/9/1993	143	143.00	1.04	148.23	1020	10.6539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18458.47789
5592050	6/4/1996	143	143.00	1.04	148.23	1020	10.6539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18458.47789
5592050	2/21/2002	143	143.00	1.04	148.23	1020	10.6539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18458.47789

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	4/14/2008	143	143.00	1.04	148.23	1020	10.6539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18458.47789
5592050	6/6/1993	142	142.00	1.04	147.20	1025	10.7061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18329.39762
5592050	5/23/1995	142	142.00	1.04	147.20	1025	10.7061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18329.39762
5592050	4/3/1996	142	142.00	1.04	147.20	1025	10.7061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18329.39762
5592050	10/27/2004	142	142.00	1.04	147.20	1025	10.7061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18329.39762
5592050	12/15/2004	142	142.00	1.04	147.20	1025	10.7061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18329.39762
5592050	3/16/2007	142	142.00	1.04	147.20	1025	10.7061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18329.39762
5592050	2/15/2009	142	142.00	1.04	147.20	1025	10.7061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18329.39762
5592050	4/26/2013	142	142.00	1.04	147.20	1025	10.7061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18329.39762
5592050	12/1/2001	141	141.00	1.04	146.16	1033	10.7896%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18200.31736
5592050	5/27/2002	141	141.00	1.04	146.16	1033	10.7896%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18200.31736
5592050	7/13/2008	141	141.00	1.04	146.16	1033	10.7896%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18200.31736
5592050	11/3/2009	141	141.00	1.04	146.16	1033	10.7896%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18200.31736
5592050	9/2/2010	141	141.00	1.04	146.16	1033	10.7896%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18200.31736
5592050	4/17/2012	141	141.00	1.04	146.16	1033	10.7896%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18200.31736
5592050	6/4/2013	141	141.00	1.04	146.16	1033	10.7896%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18200.31736
5592050	1/10/2016	141	141.00	1.04	146.16	1033	10.7896%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18200.31736
5592050	12/1/1993	140	140.00	1.04	145.12	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18071.23709
5592050	2/24/1994	140	140.00	1.04	145.12	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18071.23709
5592050	3/11/1995	140	140.00	1.04	145.12	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18071.23709
5592050	3/11/1998	140	140.00	1.04	145.12	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18071.23709
5592050	7/7/2000	140	140.00	1.04	145.12	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18071.23709
5592050	1/16/2001	140	140.00	1.04	145.12	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18071.23709
5592050	2/17/2001	140	140.00	1.04	145.12	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18071.23709
5592050	12/20/2001	140	140.00	1.04	145.12	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18071.23709
5592050	4/12/2002	140	140.00	1.04	145.12	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18071.23709
5592050	2/12/2005	140	140.00	1.04	145.12	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18071.23709
5592050	5/12/2008	140	140.00	1.04	145.12	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18071.23709
5592050	6/6/2008	140	140.00	1.04	145.12	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18071.23709
5592050	3/29/2009	140	140.00	1.04	145.12	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18071.23709
5592050	3/15/2010	140	140.00	1.04	145.12	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18071.23709

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	3/12/2011	140	140.00	1.04	145.12	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18071.23709
5592050	5/25/2011	140	140.00	1.04	145.12	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18071.23709
5592050	5/12/2013	140	140.00	1.04	145.12	1041	10.8732%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	18071.23709
5592050	11/25/1992	139	139.00	1.04	144.09	1058	11.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17942.15683
5592050	3/22/1993	139	139.00	1.04	144.09	1058	11.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17942.15683
5592050	4/2/1993	139	139.00	1.04	144.09	1058	11.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17942.15683
5592050	4/19/1995	139	139.00	1.04	144.09	1058	11.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17942.15683
5592050	7/8/1998	139	139.00	1.04	144.09	1058	11.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17942.15683
5592050	3/15/2002	139	139.00	1.04	144.09	1058	11.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17942.15683
5592050	1/17/2005	139	139.00	1.04	144.09	1058	11.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17942.15683
5592050	2/11/2005	139	139.00	1.04	144.09	1058	11.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17942.15683
5592050	12/7/2014	139	139.00	1.04	144.09	1058	11.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17942.15683
5592050	4/28/1993	138	138.00	1.04	143.05	1067	11.1448%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17813.07656
5592050	3/26/2006	138	138.00	1.04	143.05	1067	11.1448%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17813.07656
5592050	12/21/2006	138	138.00	1.04	143.05	1067	11.1448%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17813.07656
5592050	4/12/2011	138	138.00	1.04	143.05	1067	11.1448%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17813.07656
5592050	6/28/2011	138	138.00	1.04	143.05	1067	11.1448%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17813.07656
5592050	12/19/1990	137	137.00	1.04	142.01	1072	11.1970%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17683.9963
5592050	4/29/1998	137	137.00	1.04	142.01	1072	11.1970%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17683.9963
5592050	10/9/2000	137	137.00	1.04	142.01	1072	11.1970%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17683.9963
5592050	3/8/2004	137	137.00	1.04	142.01	1072	11.1970%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17683.9963
5592050	1/27/2007	137	137.00	1.04	142.01	1072	11.1970%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17683.9963
5592050	11/28/2010	137	137.00	1.04	142.01	1072	11.1970%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17683.9963
5592050	5/2/2011	137	137.00	1.04	142.01	1072	11.1970%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17683.9963
5592050	5/5/2012	137	137.00	1.04	142.01	1072	11.1970%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17683.9963
5592050	4/17/1992	136	136.00	1.04	140.98	1080	11.2806%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17554.91603
5592050	7/14/1993	136	136.00	1.04	140.98	1080	11.2806%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17554.91603
5592050	11/30/1993	136	136.00	1.04	140.98	1080	11.2806%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17554.91603
5592050	6/3/1995	136	136.00	1.04	140.98	1080	11.2806%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17554.91603
5592050	6/12/2010	136	136.00	1.04	140.98	1080	11.2806%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17554.91603
5592050	2/14/1999	135	135.00	1.04	139.94	1085	11.3328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17425.83577

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	12/14/2001	135	135.00	1.04	139.94	1085	11.3328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17425.83577
5592050	2/4/2002	135	135.00	1.04	139.94	1085	11.3328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17425.83577
5592050	4/14/2002	135	135.00	1.04	139.94	1085	11.3328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17425.83577
5592050	2/24/2004	135	135.00	1.04	139.94	1085	11.3328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17425.83577
5592050	4/19/2006	135	135.00	1.04	139.94	1085	11.3328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17425.83577
5592050	4/22/2009	135	135.00	1.04	139.94	1085	11.3328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17425.83577
5592050	4/30/2013	135	135.00	1.04	139.94	1085	11.3328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17425.83577
5592050	10/23/1993	134	134.00	1.04	138.90	1093	11.4163%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17296.7555
5592050	3/8/1994	134	134.00	1.04	138.90	1093	11.4163%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17296.7555
5592050	2/27/1998	134	134.00	1.04	138.90	1093	11.4163%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17296.7555
5592050	3/25/1998	134	134.00	1.04	138.90	1093	11.4163%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17296.7555
5592050	4/18/2006	134	134.00	1.04	138.90	1093	11.4163%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17296.7555
5592050	2/5/2012	134	134.00	1.04	138.90	1093	11.4163%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17296.7555
5592050	9/30/1993	133	133.00	1.04	137.87	1099	11.4790%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17167.67524
5592050	5/18/1996	133	133.00	1.04	137.87	1099	11.4790%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17167.67524
5592050	5/26/1998	133	133.00	1.04	137.87	1099	11.4790%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17167.67524
5592050	3/17/2001	133	133.00	1.04	137.87	1099	11.4790%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17167.67524
5592050	4/8/2009	133	133.00	1.04	137.87	1099	11.4790%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17167.67524
5592050	3/16/2015	133	133.00	1.04	137.87	1099	11.4790%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17167.67524
5592050	6/25/2015	133	133.00	1.04	137.87	1099	11.4790%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17167.67524
5592050	3/14/1991	132	132.00	1.04	136.83	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17038.59497
5592050	3/20/1991	132	132.00	1.04	136.83	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17038.59497
5592050	7/8/1993	132	132.00	1.04	136.83	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17038.59497
5592050	12/17/1994	132	132.00	1.04	136.83	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17038.59497
5592050	4/2/1998	132	132.00	1.04	136.83	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17038.59497
5592050	5/23/2002	132	132.00	1.04	136.83	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17038.59497
5592050	2/23/2004	132	132.00	1.04	136.83	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17038.59497
5592050	4/2/2004	132	132.00	1.04	136.83	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17038.59497
5592050	12/20/2004	132	132.00	1.04	136.83	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17038.59497
5592050	4/5/2008	132	132.00	1.04	136.83	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17038.59497
5592050	9/5/2008	132	132.00	1.04	136.83	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17038.59497

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/19/2009	132	132.00	1.04	136.83	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17038.59497
5592050	7/21/2010	132	132.00	1.04	136.83	1106	11.5521%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	17038.59497
5592050	3/7/1994	131	131.00	1.04	135.80	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16909.51471
5592050	4/26/1996	131	131.00	1.04	135.80	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16909.51471
5592050	7/20/1996	131	131.00	1.04	135.80	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16909.51471
5592050	4/21/1999	131	131.00	1.04	135.80	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16909.51471
5592050	11/27/2000	131	131.00	1.04	135.80	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16909.51471
5592050	12/12/2000	131	131.00	1.04	135.80	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16909.51471
5592050	4/2/2002	131	131.00	1.04	135.80	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16909.51471
5592050	1/19/2004	131	131.00	1.04	135.80	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16909.51471
5592050	12/4/2004	131	131.00	1.04	135.80	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16909.51471
5592050	12/19/2008	131	131.00	1.04	135.80	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16909.51471
5592050	3/10/2010	131	131.00	1.04	135.80	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16909.51471
5592050	4/26/2010	131	131.00	1.04	135.80	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16909.51471
5592050	4/12/2013	131	131.00	1.04	135.80	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16909.51471
5592050	7/13/2014	131	131.00	1.04	135.80	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16909.51471
5592050	6/10/2015	131	131.00	1.04	135.80	1119	11.6879%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16909.51471
5592050	1/8/1993	130	130.00	1.04	134.76	1134	11.8446%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16780.43444
5592050	11/22/1993	130	130.00	1.04	134.76	1134	11.8446%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16780.43444
5592050	5/24/1995	130	130.00	1.04	134.76	1134	11.8446%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16780.43444
5592050	1/25/1996	130	130.00	1.04	134.76	1134	11.8446%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16780.43444
5592050	4/12/2001	130	130.00	1.04	134.76	1134	11.8446%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16780.43444
5592050	4/16/2007	130	130.00	1.04	134.76	1134	11.8446%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16780.43444
5592050	10/24/2008	130	130.00	1.04	134.76	1134	11.8446%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16780.43444
5592050	1/9/2009	130	130.00	1.04	134.76	1134	11.8446%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16780.43444
5592050	6/22/2009	130	130.00	1.04	134.76	1134	11.8446%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16780.43444
5592050	4/16/1993	129	129.00	1.04	133.72	1143	11.9386%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16651.35418
5592050	4/19/1994	129	129.00	1.04	133.72	1143	11.9386%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16651.35418
5592050	5/5/1994	129	129.00	1.04	133.72	1143	11.9386%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16651.35418
5592050	7/12/2008	129	129.00	1.04	133.72	1143	11.9386%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16651.35418
5592050	5/5/2009	129	129.00	1.04	133.72	1143	11.9386%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16651.35418

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/29/2010	129	129.00	1.04	133.72	1143	11.9386%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16651.35418
5592050	1/3/2015	129	129.00	1.04	133.72	1143	11.9386%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16651.35418
5592050	1/1/1993	128	128.00	1.04	132.69	1150	12.0117%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16522.27391
5592050	12/15/1993	128	128.00	1.04	132.69	1150	12.0117%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16522.27391
5592050	8/9/1995	128	128.00	1.04	132.69	1150	12.0117%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16522.27391
5592050	6/28/2000	128	128.00	1.04	132.69	1150	12.0117%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16522.27391
5592050	2/13/2001	128	128.00	1.04	132.69	1150	12.0117%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16522.27391
5592050	4/12/2009	128	128.00	1.04	132.69	1150	12.0117%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16522.27391
5592050	1/9/2016	128	128.00	1.04	132.69	1150	12.0117%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16522.27391
5592050	4/16/1991	127	127.00	1.04	131.65	1157	12.0848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16393.19365
5592050	12/8/1993	127	127.00	1.04	131.65	1157	12.0848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16393.19365
5592050	5/8/1995	127	127.00	1.04	131.65	1157	12.0848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16393.19365
5592050	2/23/1997	127	127.00	1.04	131.65	1157	12.0848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16393.19365
5592050	3/16/1997	127	127.00	1.04	131.65	1157	12.0848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16393.19365
5592050	4/10/2002	127	127.00	1.04	131.65	1157	12.0848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16393.19365
5592050	4/20/2006	127	127.00	1.04	131.65	1157	12.0848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16393.19365
5592050	4/27/2013	127	127.00	1.04	131.65	1157	12.0848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16393.19365
5592050	5/8/2013	127	127.00	1.04	131.65	1157	12.0848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16393.19365
5592050	1/3/2016	127	127.00	1.04	131.65	1157	12.0848%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16393.19365
5592050	3/10/1993	126	126.00	1.04	130.61	1167	12.1893%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16264.11338
5592050	11/15/2000	126	126.00	1.04	130.61	1167	12.1893%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16264.11338
5592050	3/23/2008	126	126.00	1.04	130.61	1167	12.1893%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16264.11338
5592050	4/14/2012	126	126.00	1.04	130.61	1167	12.1893%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16264.11338
5592050	3/16/2016	126	126.00	1.04	130.61	1167	12.1893%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16264.11338
5592050	11/19/1992	125	125.00	1.04	129.58	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16135.03312
5592050	1/27/1993	125	125.00	1.04	129.58	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16135.03312
5592050	7/25/1993	125	125.00	1.04	129.58	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16135.03312
5592050	1/28/1999	125	125.00	1.04	129.58	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16135.03312
5592050	6/22/2001	125	125.00	1.04	129.58	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16135.03312
5592050	10/25/2001	125	125.00	1.04	129.58	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16135.03312
5592050	3/12/2008	125	125.00	1.04	129.58	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16135.03312

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	3/30/2010	125	125.00	1.04	129.58	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16135.03312
5592050	6/18/2010	125	125.00	1.04	129.58	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16135.03312
5592050	2/10/2013	125	125.00	1.04	129.58	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16135.03312
5592050	6/14/2014	125	125.00	1.04	129.58	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16135.03312
5592050	11/24/2014	125	125.00	1.04	129.58	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16135.03312
5592050	12/26/2014	125	125.00	1.04	129.58	1172	12.2415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16135.03312
5592050	10/9/1990	124	124.00	1.04	128.54	1185	12.3773%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16005.95285
5592050	10/19/1993	124	124.00	1.04	128.54	1185	12.3773%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16005.95285
5592050	12/14/1993	124	124.00	1.04	128.54	1185	12.3773%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16005.95285
5592050	1/11/1998	124	124.00	1.04	128.54	1185	12.3773%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16005.95285
5592050	4/17/1998	124	124.00	1.04	128.54	1185	12.3773%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16005.95285
5592050	1/7/2004	124	124.00	1.04	128.54	1185	12.3773%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16005.95285
5592050	5/13/2015	124	124.00	1.04	128.54	1185	12.3773%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	16005.95285
5592050	2/11/1991	123	123.00	1.04	127.50	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15876.87259
5592050	6/11/1996	123	123.00	1.04	127.50	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15876.87259
5592050	2/15/1999	123	123.00	1.04	127.50	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15876.87259
5592050	5/25/2002	123	123.00	1.04	127.50	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15876.87259
5592050	6/18/2002	123	123.00	1.04	127.50	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15876.87259
5592050	11/21/2003	123	123.00	1.04	127.50	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15876.87259
5592050	12/31/2003	123	123.00	1.04	127.50	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15876.87259
5592050	3/15/2006	123	123.00	1.04	127.50	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15876.87259
5592050	4/21/2006	123	123.00	1.04	127.50	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15876.87259
5592050	4/27/2006	123	123.00	1.04	127.50	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15876.87259
5592050	3/11/2008	123	123.00	1.04	127.50	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15876.87259
5592050	5/12/2009	123	123.00	1.04	127.50	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15876.87259
5592050	11/28/2009	123	123.00	1.04	127.50	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15876.87259
5592050	5/30/2011	123	123.00	1.04	127.50	1192	12.4504%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15876.87259
5592050	1/14/1991	122	122.00	1.04	126.47	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15747.79232
5592050	9/18/1993	122	122.00	1.04	126.47	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15747.79232
5592050	1/20/1996	122	122.00	1.04	126.47	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15747.79232
5592050	5/18/2001	122	122.00	1.04	126.47	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15747.79232

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/5/2005	122	122.00	1.04	126.47	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15747.79232
5592050	4/25/2006	122	122.00	1.04	126.47	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15747.79232
5592050	5/3/2006	122	122.00	1.04	126.47	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15747.79232
5592050	4/25/2010	122	122.00	1.04	126.47	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15747.79232
5592050	5/2/2010	122	122.00	1.04	126.47	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15747.79232
5592050	6/11/2014	122	122.00	1.04	126.47	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15747.79232
5592050	4/11/2015	122	122.00	1.04	126.47	1206	12.5966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15747.79232
5592050	5/21/1990	121	121.00	1.04	125.43	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15618.71206
5592050	3/25/1993	121	121.00	1.04	125.43	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15618.71206
5592050	2/21/1998	121	121.00	1.04	125.43	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15618.71206
5592050	4/8/1998	121	121.00	1.04	125.43	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15618.71206
5592050	4/14/1998	121	121.00	1.04	125.43	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15618.71206
5592050	6/2/2002	121	121.00	1.04	125.43	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15618.71206
5592050	11/25/2003	121	121.00	1.04	125.43	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15618.71206
5592050	4/22/2006	121	121.00	1.04	125.43	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15618.71206
5592050	4/29/2006	121	121.00	1.04	125.43	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15618.71206
5592050	3/10/2008	121	121.00	1.04	125.43	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15618.71206
5592050	4/15/2008	121	121.00	1.04	125.43	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15618.71206
5592050	6/11/2008	121	121.00	1.04	125.43	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15618.71206
5592050	4/16/2011	121	121.00	1.04	125.43	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15618.71206
5592050	10/4/2014	121	121.00	1.04	125.43	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15618.71206
5592050	11/25/2014	121	121.00	1.04	125.43	1217	12.7115%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15618.71206
5592050	1/13/1991	120	120.00	1.04	124.39	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15489.63179
5592050	12/18/1992	120	120.00	1.04	124.39	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15489.63179
5592050	5/19/1996	120	120.00	1.04	124.39	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15489.63179
5592050	1/24/1997	120	120.00	1.04	124.39	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15489.63179
5592050	1/19/1999	120	120.00	1.04	124.39	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15489.63179
5592050	3/1/2001	120	120.00	1.04	124.39	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15489.63179
5592050	3/13/2002	120	120.00	1.04	124.39	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15489.63179
5592050	5/24/2002	120	120.00	1.04	124.39	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15489.63179
5592050	4/26/2006	120	120.00	1.04	124.39	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15489.63179

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	1/6/2007	120	120.00	1.04	124.39	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15489.63179
5592050	1/10/2009	120	120.00	1.04	124.39	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15489.63179
5592050	12/29/2009	120	120.00	1.04	124.39	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15489.63179
5592050	3/29/2013	120	120.00	1.04	124.39	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15489.63179
5592050	7/1/2015	120	120.00	1.04	124.39	1232	12.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15489.63179
5592050	11/16/1992	119	119.00	1.04	123.36	1246	13.0144%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15360.55153
5592050	5/10/1994	119	119.00	1.04	123.36	1246	13.0144%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15360.55153
5592050	5/31/1995	119	119.00	1.04	123.36	1246	13.0144%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15360.55153
5592050	2/3/1999	119	119.00	1.04	123.36	1246	13.0144%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15360.55153
5592050	4/30/1999	119	119.00	1.04	123.36	1246	13.0144%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15360.55153
5592050	3/16/2001	119	119.00	1.04	123.36	1246	13.0144%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15360.55153
5592050	12/22/2004	119	119.00	1.04	123.36	1246	13.0144%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15360.55153
5592050	4/28/2006	119	119.00	1.04	123.36	1246	13.0144%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15360.55153
5592050	3/9/2008	119	119.00	1.04	123.36	1246	13.0144%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15360.55153
5592050	4/6/2014	119	119.00	1.04	123.36	1246	13.0144%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15360.55153
5592050	10/10/1990	118	118.00	1.04	122.32	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15231.47126
5592050	3/20/1993	118	118.00	1.04	122.32	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15231.47126
5592050	7/15/1993	118	118.00	1.04	122.32	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15231.47126
5592050	8/19/1995	118	118.00	1.04	122.32	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15231.47126
5592050	3/27/1998	118	118.00	1.04	122.32	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15231.47126
5592050	5/10/1998	118	118.00	1.04	122.32	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15231.47126
5592050	6/25/1998	118	118.00	1.04	122.32	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15231.47126
5592050	5/5/1999	118	118.00	1.04	122.32	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15231.47126
5592050	11/3/2004	118	118.00	1.04	122.32	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15231.47126
5592050	2/18/2005	118	118.00	1.04	122.32	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15231.47126
5592050	3/26/2005	118	118.00	1.04	122.32	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15231.47126
5592050	4/23/2006	118	118.00	1.04	122.32	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15231.47126
5592050	4/6/2008	118	118.00	1.04	122.32	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15231.47126
5592050	11/4/2009	118	118.00	1.04	122.32	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15231.47126
5592050	12/4/2009	118	118.00	1.04	122.32	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15231.47126
5592050	4/3/2010	118	118.00	1.04	122.32	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15231.47126

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/3/2011	118	118.00	1.04	122.32	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15231.47126
5592050	5/16/2014	118	118.00	1.04	122.32	1256	13.1189%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15231.47126
5592050	11/18/1992	117	117.00	1.04	121.28	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15102.391
5592050	10/1/1993	117	117.00	1.04	121.28	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15102.391
5592050	5/25/1995	117	117.00	1.04	121.28	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15102.391
5592050	8/20/1995	117	117.00	1.04	121.28	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15102.391
5592050	6/5/1996	117	117.00	1.04	121.28	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15102.391
5592050	3/26/1998	117	117.00	1.04	121.28	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15102.391
5592050	5/1/1998	117	117.00	1.04	121.28	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15102.391
5592050	6/12/2001	117	117.00	1.04	121.28	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15102.391
5592050	2/22/2004	117	117.00	1.04	121.28	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15102.391
5592050	12/16/2009	117	117.00	1.04	121.28	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15102.391
5592050	3/3/2013	117	117.00	1.04	121.28	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15102.391
5592050	3/13/2014	117	117.00	1.04	121.28	1274	13.3069%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	15102.391
5592050	8/6/1991	116	116.00	1.04	120.25	1286	13.4322%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14973.31073
5592050	11/26/1992	116	116.00	1.04	120.25	1286	13.4322%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14973.31073
5592050	12/20/1992	116	116.00	1.04	120.25	1286	13.4322%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14973.31073
5592050	6/12/1996	116	116.00	1.04	120.25	1286	13.4322%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14973.31073
5592050	5/15/1999	116	116.00	1.04	120.25	1286	13.4322%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14973.31073
5592050	3/18/2002	116	116.00	1.04	120.25	1286	13.4322%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14973.31073
5592050	3/23/2007	116	116.00	1.04	120.25	1286	13.4322%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14973.31073
5592050	2/25/2010	116	116.00	1.04	120.25	1286	13.4322%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14973.31073
5592050	11/29/1990	115	115.00	1.04	119.21	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14844.23047
5592050	4/27/1994	115	115.00	1.04	119.21	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14844.23047
5592050	5/6/1994	115	115.00	1.04	119.21	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14844.23047
5592050	1/18/1995	115	115.00	1.04	119.21	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14844.23047
5592050	3/4/1997	115	115.00	1.04	119.21	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14844.23047
5592050	2/16/1999	115	115.00	1.04	119.21	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14844.23047
5592050	5/8/1999	115	115.00	1.04	119.21	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14844.23047
5592050	3/25/2007	115	115.00	1.04	119.21	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14844.23047
5592050	2/16/2009	115	115.00	1.04	119.21	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14844.23047

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	1/27/2010	115	115.00	1.04	119.21	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14844.23047
5592050	4/5/2010	115	115.00	1.04	119.21	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14844.23047
5592050	6/5/2013	115	115.00	1.04	119.21	1294	13.5158%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14844.23047
5592050	1/28/1993	114	114.00	1.04	118.17	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14715.1502
5592050	3/21/1993	114	114.00	1.04	118.17	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14715.1502
5592050	12/9/1993	114	114.00	1.04	118.17	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14715.1502
5592050	6/6/1996	114	114.00	1.04	118.17	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14715.1502
5592050	3/4/2002	114	114.00	1.04	118.17	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14715.1502
5592050	3/25/2006	114	114.00	1.04	118.17	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14715.1502
5592050	4/24/2006	114	114.00	1.04	118.17	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14715.1502
5592050	3/3/2007	114	114.00	1.04	118.17	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14715.1502
5592050	6/28/2007	114	114.00	1.04	118.17	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14715.1502
5592050	6/21/2011	114	114.00	1.04	118.17	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14715.1502
5592050	2/23/2014	114	114.00	1.04	118.17	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14715.1502
5592050	5/2/2014	114	114.00	1.04	118.17	1306	13.6411%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14715.1502
5592050	4/29/1993	113	113.00	1.04	117.14	1318	13.7665%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14586.06994
5592050	11/23/1993	113	113.00	1.04	117.14	1318	13.7665%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14586.06994
5592050	2/6/1997	113	113.00	1.04	117.14	1318	13.7665%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14586.06994
5592050	3/18/1997	113	113.00	1.04	117.14	1318	13.7665%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14586.06994
5592050	3/13/2008	113	113.00	1.04	117.14	1318	13.7665%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14586.06994
5592050	2/9/2009	113	113.00	1.04	117.14	1318	13.7665%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14586.06994
5592050	4/16/2009	113	113.00	1.04	117.14	1318	13.7665%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14586.06994
5592050	5/15/2014	113	113.00	1.04	117.14	1318	13.7665%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14586.06994
5592050	4/19/1992	112	112.00	1.04	116.10	1326	13.8500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14456.98967
5592050	1/31/1994	112	112.00	1.04	116.10	1326	13.8500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14456.98967
5592050	3/12/1995	112	112.00	1.04	116.10	1326	13.8500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14456.98967
5592050	6/20/2000	112	112.00	1.04	116.10	1326	13.8500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14456.98967
5592050	12/2/2010	112	112.00	1.04	116.10	1326	13.8500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14456.98967
5592050	5/1/2013	112	112.00	1.04	116.10	1326	13.8500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14456.98967
5592050	5/13/2013	112	112.00	1.04	116.10	1326	13.8500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14456.98967
5592050	5/21/2013	112	112.00	1.04	116.10	1326	13.8500%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14456.98967

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/13/1994	111	111.00	1.04	115.06	1334	13.9336%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14327.90941
5592050	2/3/2001	111	111.00	1.04	115.06	1334	13.9336%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14327.90941
5592050	11/23/2003	111	111.00	1.04	115.06	1334	13.9336%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14327.90941
5592050	1/18/2005	111	111.00	1.04	115.06	1334	13.9336%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14327.90941
5592050	1/19/2007	111	111.00	1.04	115.06	1334	13.9336%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14327.90941
5592050	3/13/2011	111	111.00	1.04	115.06	1334	13.9336%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14327.90941
5592050	12/28/2014	111	111.00	1.04	115.06	1334	13.9336%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14327.90941
5592050	1/2/1991	110	110.00	1.04	114.03	1341	14.0067%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14198.82914
5592050	5/15/1991	110	110.00	1.04	114.03	1341	14.0067%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14198.82914
5592050	5/20/1996	110	110.00	1.04	114.03	1341	14.0067%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14198.82914
5592050	1/2/2005	110	110.00	1.04	114.03	1341	14.0067%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14198.82914
5592050	3/28/2006	110	110.00	1.04	114.03	1341	14.0067%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14198.82914
5592050	3/16/2010	110	110.00	1.04	114.03	1341	14.0067%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14198.82914
5592050	6/27/2010	110	110.00	1.04	114.03	1341	14.0067%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14198.82914
5592050	6/4/2014	110	110.00	1.04	114.03	1341	14.0067%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14198.82914
5592050	10/16/2014	110	110.00	1.04	114.03	1341	14.0067%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14198.82914
5592050	10/24/1993	109	109.00	1.04	112.99	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14069.74888
5592050	4/24/1995	109	109.00	1.04	112.99	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14069.74888
5592050	4/22/1999	109	109.00	1.04	112.99	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14069.74888
5592050	3/9/2004	109	109.00	1.04	112.99	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14069.74888
5592050	11/12/2004	109	109.00	1.04	112.99	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14069.74888
5592050	2/11/2008	109	109.00	1.04	112.99	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14069.74888
5592050	3/24/2008	109	109.00	1.04	112.99	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14069.74888
5592050	12/26/2008	109	109.00	1.04	112.99	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14069.74888
5592050	5/6/2009	109	109.00	1.04	112.99	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14069.74888
5592050	12/30/2009	109	109.00	1.04	112.99	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14069.74888
5592050	5/17/2010	109	109.00	1.04	112.99	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14069.74888
5592050	3/15/2011	109	109.00	1.04	112.99	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14069.74888
5592050	5/7/2012	109	109.00	1.04	112.99	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14069.74888
5592050	1/14/2013	109	109.00	1.04	112.99	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14069.74888
5592050	6/24/2015	109	109.00	1.04	112.99	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14069.74888

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	1/4/2016	109	109.00	1.04	112.99	1350	14.1007%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	14069.74888
5592050	1/22/1991	108	108.00	1.04	111.95	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13940.66861
5592050	3/25/1991	108	108.00	1.04	111.95	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13940.66861
5592050	3/17/1997	108	108.00	1.04	111.95	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13940.66861
5592050	6/7/1999	108	108.00	1.04	111.95	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13940.66861
5592050	11/16/2000	108	108.00	1.04	111.95	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13940.66861
5592050	6/19/2002	108	108.00	1.04	111.95	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13940.66861
5592050	11/4/2004	108	108.00	1.04	111.95	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13940.66861
5592050	3/27/2006	108	108.00	1.04	111.95	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13940.66861
5592050	12/2/2006	108	108.00	1.04	111.95	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13940.66861
5592050	2/15/2008	108	108.00	1.04	111.95	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13940.66861
5592050	11/29/2009	108	108.00	1.04	111.95	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13940.66861
5592050	12/8/2014	108	108.00	1.04	111.95	1366	14.2678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13940.66861
5592050	11/20/1992	107	107.00	1.04	110.92	1378	14.3931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13811.58835
5592050	1/3/1993	107	107.00	1.04	110.92	1378	14.3931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13811.58835
5592050	4/20/1994	107	107.00	1.04	110.92	1378	14.3931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13811.58835
5592050	10/10/2000	107	107.00	1.04	110.92	1378	14.3931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13811.58835
5592050	3/2/2001	107	107.00	1.04	110.92	1378	14.3931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13811.58835
5592050	3/19/2002	107	107.00	1.04	110.92	1378	14.3931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13811.58835
5592050	4/15/2002	107	107.00	1.04	110.92	1378	14.3931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13811.58835
5592050	4/16/2008	107	107.00	1.04	110.92	1378	14.3931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13811.58835
5592050	2/18/2009	107	107.00	1.04	110.92	1378	14.3931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13811.58835
5592050	1/12/2014	107	107.00	1.04	110.92	1378	14.3931%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13811.58835
5592050	12/19/1992	106	106.00	1.04	109.88	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13682.50808
5592050	1/9/1993	106	106.00	1.04	109.88	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13682.50808
5592050	4/21/1994	106	106.00	1.04	109.88	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13682.50808
5592050	12/21/2001	106	106.00	1.04	109.88	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13682.50808
5592050	5/26/2002	106	106.00	1.04	109.88	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13682.50808
5592050	4/3/2004	106	106.00	1.04	109.88	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13682.50808
5592050	12/6/2004	106	106.00	1.04	109.88	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13682.50808
5592050	2/28/2007	106	106.00	1.04	109.88	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13682.50808

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	3/2/2008	106	106.00	1.04	109.88	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13682.50808
5592050	4/9/2009	106	106.00	1.04	109.88	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13682.50808
5592050	4/23/2009	106	106.00	1.04	109.88	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13682.50808
5592050	9/12/2010	106	106.00	1.04	109.88	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13682.50808
5592050	10/13/2014	106	106.00	1.04	109.88	1388	14.4976%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13682.50808
5592050	3/21/1991	105	105.00	1.04	108.84	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13553.42782
5592050	4/3/1993	105	105.00	1.04	108.84	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13553.42782
5592050	12/10/1993	105	105.00	1.04	108.84	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13553.42782
5592050	6/1/1995	105	105.00	1.04	108.84	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13553.42782
5592050	3/19/1997	105	105.00	1.04	108.84	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13553.42782
5592050	3/12/1998	105	105.00	1.04	108.84	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13553.42782
5592050	12/5/2004	105	105.00	1.04	108.84	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13553.42782
5592050	1/28/2007	105	105.00	1.04	108.84	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13553.42782
5592050	10/25/2008	105	105.00	1.04	108.84	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13553.42782
5592050	2/17/2009	105	105.00	1.04	108.84	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13553.42782
5592050	5/20/2009	105	105.00	1.04	108.84	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13553.42782
5592050	6/13/2009	105	105.00	1.04	108.84	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13553.42782
5592050	3/17/2015	105	105.00	1.04	108.84	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13553.42782
5592050	3/28/2015	105	105.00	1.04	108.84	1401	14.6334%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13553.42782
5592050	11/17/1992	104	104.00	1.04	107.81	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13424.34755
5592050	5/26/1995	104	104.00	1.04	107.81	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13424.34755
5592050	6/2/1995	104	104.00	1.04	107.81	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13424.34755
5592050	2/18/2001	104	104.00	1.04	107.81	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13424.34755
5592050	4/11/2002	104	104.00	1.04	107.81	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13424.34755
5592050	6/3/2002	104	104.00	1.04	107.81	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13424.34755
5592050	3/25/2005	104	104.00	1.04	107.81	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13424.34755
5592050	1/2/2007	104	104.00	1.04	107.81	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13424.34755
5592050	3/14/2008	104	104.00	1.04	107.81	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13424.34755
5592050	6/17/2009	104	104.00	1.04	107.81	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13424.34755
5592050	4/8/2010	104	104.00	1.04	107.81	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13424.34755
5592050	9/11/2010	104	104.00	1.04	107.81	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13424.34755

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	1/29/2012	104	104.00	1.04	107.81	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13424.34755
5592050	5/8/2012	104	104.00	1.04	107.81	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13424.34755
5592050	2/12/2013	104	104.00	1.04	107.81	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13424.34755
5592050	6/5/2014	104	104.00	1.04	107.81	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13424.34755
5592050	12/27/2014	104	104.00	1.04	107.81	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13424.34755
5592050	12/25/2015	104	104.00	1.04	107.81	1415	14.7796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13424.34755
5592050	8/2/1993	103	103.00	1.04	106.77	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13295.26729
5592050	6/25/1994	103	103.00	1.04	106.77	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13295.26729
5592050	2/22/1998	103	103.00	1.04	106.77	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13295.26729
5592050	2/17/1999	103	103.00	1.04	106.77	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13295.26729
5592050	6/20/2001	103	103.00	1.04	106.77	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13295.26729
5592050	3/14/2002	103	103.00	1.04	106.77	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13295.26729
5592050	2/25/2004	103	103.00	1.04	106.77	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13295.26729
5592050	4/7/2008	103	103.00	1.04	106.77	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13295.26729
5592050	12/31/2009	103	103.00	1.04	106.77	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13295.26729
5592050	3/4/2013	103	103.00	1.04	106.77	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13295.26729
5592050	5/2/2013	103	103.00	1.04	106.77	1433	14.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13295.26729
5592050	7/21/1993	102	102.00	1.04	105.73	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13166.18702
5592050	1/22/1995	102	102.00	1.04	105.73	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13166.18702
5592050	4/4/1996	102	102.00	1.04	105.73	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13166.18702
5592050	6/8/1996	102	102.00	1.04	105.73	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13166.18702
5592050	3/15/1998	102	102.00	1.04	105.73	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13166.18702
5592050	5/2/1998	102	102.00	1.04	105.73	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13166.18702
5592050	3/22/2002	102	102.00	1.04	105.73	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13166.18702
5592050	4/4/2006	102	102.00	1.04	105.73	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13166.18702
5592050	4/17/2007	102	102.00	1.04	105.73	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13166.18702
5592050	3/25/2008	102	102.00	1.04	105.73	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13166.18702
5592050	5/26/2009	102	102.00	1.04	105.73	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13166.18702
5592050	3/9/2010	102	102.00	1.04	105.73	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13166.18702
5592050	7/26/2010	102	102.00	1.04	105.73	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13166.18702
5592050	3/16/2011	102	102.00	1.04	105.73	1444	15.0825%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13166.18702

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	5/12/1991	101	101.00	1.04	104.70	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13037.10676
5592050	12/29/1992	101	101.00	1.04	104.70	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13037.10676
5592050	3/26/1993	101	101.00	1.04	104.70	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13037.10676
5592050	6/7/1993	101	101.00	1.04	104.70	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13037.10676
5592050	9/12/1993	101	101.00	1.04	104.70	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13037.10676
5592050	11/24/1993	101	101.00	1.04	104.70	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13037.10676
5592050	2/1/1994	101	101.00	1.04	104.70	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13037.10676
5592050	4/22/1994	101	101.00	1.04	104.70	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13037.10676
5592050	6/15/1994	101	101.00	1.04	104.70	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13037.10676
5592050	1/26/1996	101	101.00	1.04	104.70	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13037.10676
5592050	4/9/1998	101	101.00	1.04	104.70	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13037.10676
5592050	5/4/2011	101	101.00	1.04	104.70	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13037.10676
5592050	5/6/2012	101	101.00	1.04	104.70	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13037.10676
5592050	3/11/2013	101	101.00	1.04	104.70	1458	15.2287%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	13037.10676
5592050	2/2/1991	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649
5592050	5/13/1993	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649
5592050	5/21/1996	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649
5592050	6/13/1996	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649
5592050	2/1/1997	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649
5592050	12/13/2000	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649
5592050	1/17/2004	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649
5592050	7/10/2004	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649
5592050	3/23/2005	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649
5592050	12/24/2006	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649
5592050	9/17/2008	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649
5592050	12/21/2008	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649
5592050	1/11/2009	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649
5592050	5/28/2009	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649
5592050	11/5/2009	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649
5592050	12/8/2009	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649
5592050	12/17/2009	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	1/20/2010	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649
5592050	4/13/2011	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649
5592050	6/17/2011	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649
5592050	4/7/2014	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649
5592050	9/11/2014	100	100.00	1.04	103.66	1472	15.3750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12908.02649
5592050	11/21/1992	99	99.00	1.04	102.62	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12778.94623
5592050	3/11/1993	99	99.00	1.04	102.62	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12778.94623
5592050	4/30/1993	99	99.00	1.04	102.62	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12778.94623
5592050	6/9/1997	99	99.00	1.04	102.62	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12778.94623
5592050	11/7/2000	99	99.00	1.04	102.62	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12778.94623
5592050	1/19/2005	99	99.00	1.04	102.62	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12778.94623
5592050	2/21/2005	99	99.00	1.04	102.62	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12778.94623
5592050	5/31/2011	99	99.00	1.04	102.62	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12778.94623
5592050	4/18/2012	99	99.00	1.04	102.62	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12778.94623
5592050	3/5/2013	99	99.00	1.04	102.62	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12778.94623
5592050	5/14/2013	99	99.00	1.04	102.62	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12778.94623
5592050	8/23/2013	99	99.00	1.04	102.62	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12778.94623
5592050	1/11/2014	99	99.00	1.04	102.62	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12778.94623
5592050	1/11/2016	99	99.00	1.04	102.62	1494	15.6048%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12778.94623
5592050	4/21/1990	98	98.00	1.04	101.59	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12649.86596
5592050	5/22/1990	98	98.00	1.04	101.59	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12649.86596
5592050	2/15/1991	98	98.00	1.04	101.59	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12649.86596
5592050	1/2/1993	98	98.00	1.04	101.59	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12649.86596
5592050	9/9/1997	98	98.00	1.04	101.59	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12649.86596
5592050	5/27/1998	98	98.00	1.04	101.59	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12649.86596
5592050	6/13/2001	98	98.00	1.04	101.59	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12649.86596
5592050	3/6/2002	98	98.00	1.04	101.59	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12649.86596
5592050	6/20/2002	98	98.00	1.04	101.59	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12649.86596
5592050	4/2/2006	98	98.00	1.04	101.59	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12649.86596
5592050	3/31/2010	98	98.00	1.04	101.59	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12649.86596
5592050	4/7/2010	98	98.00	1.04	101.59	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12649.86596

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	6/28/2010	98	98.00	1.04	101.59	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12649.86596
5592050	3/14/2011	98	98.00	1.04	101.59	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12649.86596
5592050	3/30/2013	98	98.00	1.04	101.59	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12649.86596
5592050	6/6/2013	98	98.00	1.04	101.59	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12649.86596
5592050	5/3/2014	98	98.00	1.04	101.59	1508	15.7510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12649.86596
5592050	5/11/1991	97	97.00	1.04	100.55	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12520.7857
5592050	11/27/1992	97	97.00	1.04	100.55	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12520.7857
5592050	12/21/1992	97	97.00	1.04	100.55	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12520.7857
5592050	9/5/1993	97	97.00	1.04	100.55	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12520.7857
5592050	12/16/1993	97	97.00	1.04	100.55	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12520.7857
5592050	3/9/1994	97	97.00	1.04	100.55	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12520.7857
5592050	5/11/1994	97	97.00	1.04	100.55	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12520.7857
5592050	4/27/1996	97	97.00	1.04	100.55	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12520.7857
5592050	3/5/1997	97	97.00	1.04	100.55	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12520.7857
5592050	4/18/1998	97	97.00	1.04	100.55	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12520.7857
5592050	5/11/1998	97	97.00	1.04	100.55	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12520.7857
5592050	2/5/2002	97	97.00	1.04	100.55	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12520.7857
5592050	4/3/2002	97	97.00	1.04	100.55	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12520.7857
5592050	3/16/2006	97	97.00	1.04	100.55	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12520.7857
5592050	3/26/2007	97	97.00	1.04	100.55	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12520.7857
5592050	3/15/2008	97	97.00	1.04	100.55	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12520.7857
5592050	5/19/2010	97	97.00	1.04	100.55	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12520.7857
5592050	5/14/2011	97	97.00	1.04	100.55	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12520.7857
5592050	6/29/2013	97	97.00	1.04	100.55	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12520.7857
5592050	1/5/2016	97	97.00	1.04	100.55	1525	15.9286%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12520.7857
5592050	6/8/1990	96	96.00	1.04	99.51	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12391.70543
5592050	9/19/1993	96	96.00	1.04	99.51	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12391.70543
5592050	2/28/1998	96	96.00	1.04	99.51	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12391.70543
5592050	3/3/2001	96	96.00	1.04	99.51	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12391.70543
5592050	5/26/2001	96	96.00	1.04	99.51	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12391.70543
5592050	3/7/2002	96	96.00	1.04	99.51	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12391.70543

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/12/2003	96	96.00	1.04	99.51	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12391.70543
5592050	12/23/2004	96	96.00	1.04	99.51	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12391.70543
5592050	2/20/2005	96	96.00	1.04	99.51	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12391.70543
5592050	5/13/2008	96	96.00	1.04	99.51	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12391.70543
5592050	7/8/2008	96	96.00	1.04	99.51	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12391.70543
5592050	4/17/2009	96	96.00	1.04	99.51	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12391.70543
5592050	12/11/2009	96	96.00	1.04	99.51	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12391.70543
5592050	4/4/2010	96	96.00	1.04	99.51	1545	16.1375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12391.70543
5592050	1/13/1993	95	95.00	1.04	98.48	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12262.62517
5592050	1/12/1998	95	95.00	1.04	98.48	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12262.62517
5592050	3/14/1998	95	95.00	1.04	98.48	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12262.62517
5592050	2/19/2001	95	95.00	1.04	98.48	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12262.62517
5592050	12/22/2008	95	95.00	1.04	98.48	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12262.62517
5592050	5/7/2009	95	95.00	1.04	98.48	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12262.62517
5592050	12/5/2009	95	95.00	1.04	98.48	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12262.62517
5592050	3/17/2010	95	95.00	1.04	98.48	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12262.62517
5592050	3/17/2011	95	95.00	1.04	98.48	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12262.62517
5592050	2/6/2012	95	95.00	1.04	98.48	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12262.62517
5592050	6/28/2013	95	95.00	1.04	98.48	1559	16.2837%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12262.62517
5592050	12/20/1990	94	94.00	1.04	97.44	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12133.5449
5592050	7/27/1992	94	94.00	1.04	97.44	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12133.5449
5592050	1/29/1993	94	94.00	1.04	97.44	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12133.5449
5592050	5/14/1994	94	94.00	1.04	97.44	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12133.5449
5592050	4/22/1995	94	94.00	1.04	97.44	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12133.5449
5592050	3/20/1997	94	94.00	1.04	97.44	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12133.5449
5592050	6/15/1999	94	94.00	1.04	97.44	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12133.5449
5592050	12/22/2001	94	94.00	1.04	97.44	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12133.5449
5592050	5/5/2003	94	94.00	1.04	97.44	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12133.5449
5592050	2/19/2005	94	94.00	1.04	97.44	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12133.5449
5592050	3/24/2005	94	94.00	1.04	97.44	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12133.5449
5592050	2/26/2010	94	94.00	1.04	97.44	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12133.5449

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/6/2011	94	94.00	1.04	97.44	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12133.5449
5592050	4/13/2013	94	94.00	1.04	97.44	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12133.5449
5592050	5/17/2014	94	94.00	1.04	97.44	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12133.5449
5592050	12/29/2014	94	94.00	1.04	97.44	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12133.5449
5592050	1/5/2015	94	94.00	1.04	97.44	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12133.5449
5592050	4/12/2015	94	94.00	1.04	97.44	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12133.5449
5592050	5/14/2015	94	94.00	1.04	97.44	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12133.5449
5592050	3/17/2016	94	94.00	1.04	97.44	1570	16.3986%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12133.5449
5592050	2/12/1991	93	93.00	1.04	96.40	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12004.46464
5592050	3/15/1991	93	93.00	1.04	96.40	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12004.46464
5592050	3/26/1991	93	93.00	1.04	96.40	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12004.46464
5592050	10/2/1993	93	93.00	1.04	96.40	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12004.46464
5592050	2/25/1994	93	93.00	1.04	96.40	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12004.46464
5592050	3/13/1995	93	93.00	1.04	96.40	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12004.46464
5592050	6/30/1995	93	93.00	1.04	96.40	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12004.46464
5592050	3/12/1997	93	93.00	1.04	96.40	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12004.46464
5592050	5/16/1999	93	93.00	1.04	96.40	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12004.46464
5592050	10/24/2001	93	93.00	1.04	96.40	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12004.46464
5592050	4/9/2008	93	93.00	1.04	96.40	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12004.46464
5592050	4/17/2008	93	93.00	1.04	96.40	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12004.46464
5592050	4/1/2009	93	93.00	1.04	96.40	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12004.46464
5592050	6/23/2009	93	93.00	1.04	96.40	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12004.46464
5592050	11/30/2009	93	93.00	1.04	96.40	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12004.46464
5592050	12/18/2009	93	93.00	1.04	96.40	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12004.46464
5592050	4/27/2010	93	93.00	1.04	96.40	1590	16.6075%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	12004.46464
5592050	1/10/1993	92	92.00	1.04	95.37	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11875.38437
5592050	4/4/1993	92	92.00	1.04	95.37	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11875.38437
5592050	10/25/1993	92	92.00	1.04	95.37	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11875.38437
5592050	5/22/1996	92	92.00	1.04	95.37	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11875.38437
5592050	5/23/1996	92	92.00	1.04	95.37	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11875.38437
5592050	3/18/2001	92	92.00	1.04	95.37	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11875.38437

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	6/21/2001	92	92.00	1.04	95.37	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11875.38437
5592050	3/23/2002	92	92.00	1.04	95.37	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11875.38437
5592050	10/28/2004	92	92.00	1.04	95.37	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11875.38437
5592050	1/20/2005	92	92.00	1.04	95.37	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11875.38437
5592050	4/13/2005	92	92.00	1.04	95.37	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11875.38437
5592050	2/26/2008	92	92.00	1.04	95.37	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11875.38437
5592050	4/8/2008	92	92.00	1.04	95.37	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11875.38437
5592050	4/24/2009	92	92.00	1.04	95.37	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11875.38437
5592050	4/6/2010	92	92.00	1.04	95.37	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11875.38437
5592050	9/5/2010	92	92.00	1.04	95.37	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11875.38437
5592050	1/3/2011	92	92.00	1.04	95.37	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11875.38437
5592050	6/11/2015	92	92.00	1.04	95.37	1607	16.7850%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11875.38437
5592050	2/15/1990	91	91.00	1.04	94.33	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11746.30411
5592050	4/17/1993	91	91.00	1.04	94.33	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11746.30411
5592050	4/20/1993	91	91.00	1.04	94.33	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11746.30411
5592050	4/23/1995	91	91.00	1.04	94.33	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11746.30411
5592050	3/16/1998	91	91.00	1.04	94.33	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11746.30411
5592050	2/22/2002	91	91.00	1.04	94.33	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11746.30411
5592050	6/4/2002	91	91.00	1.04	94.33	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11746.30411
5592050	11/5/2004	91	91.00	1.04	94.33	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11746.30411
5592050	3/26/2008	91	91.00	1.04	94.33	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11746.30411
5592050	1/28/2010	91	91.00	1.04	94.33	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11746.30411
5592050	5/5/2011	91	91.00	1.04	94.33	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11746.30411
5592050	1/23/2012	91	91.00	1.04	94.33	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11746.30411
5592050	10/8/2014	91	91.00	1.04	94.33	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11746.30411
5592050	10/17/2014	91	91.00	1.04	94.33	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11746.30411
5592050	12/9/2014	91	91.00	1.04	94.33	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11746.30411
5592050	1/6/2016	91	91.00	1.04	94.33	1625	16.9731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11746.30411
5592050	12/24/1990	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	1/3/1991	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	2/19/1991	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/22/1993	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	3/27/1993	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	6/11/1993	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	7/4/1993	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	12/18/1993	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	2/2/1994	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	2/22/1994	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	4/23/1994	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	11/22/1994	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	1/28/1995	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	6/18/1996	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	3/13/1998	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	6/26/1998	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	1/20/1999	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	5/1/1999	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	6/22/2000	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	5/31/2001	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	12/23/2001	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	5/16/2004	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	1/20/2007	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	2/15/2007	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	3/17/2007	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	3/1/2008	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	12/23/2008	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	2/27/2009	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	6/22/2011	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	6/29/2011	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	3/6/2013	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	4/8/2014	90	90.00	1.04	93.29	1641	17.1402%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11617.22384
5592050	6/23/1990	89	89.00	1.04	92.26	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11488.14358
5592050	1/31/1993	89	89.00	1.04	92.26	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11488.14358

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	6/23/1995	89	89.00	1.04	92.26	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11488.14358
5592050	2/24/1997	89	89.00	1.04	92.26	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11488.14358
5592050	3/6/1997	89	89.00	1.04	92.26	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11488.14358
5592050	2/23/1998	89	89.00	1.04	92.26	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11488.14358
5592050	2/18/1999	89	89.00	1.04	92.26	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11488.14358
5592050	11/28/2000	89	89.00	1.04	92.26	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11488.14358
5592050	6/21/2002	89	89.00	1.04	92.26	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11488.14358
5592050	1/20/2004	89	89.00	1.04	92.26	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11488.14358
5592050	2/26/2004	89	89.00	1.04	92.26	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11488.14358
5592050	1/8/2007	89	89.00	1.04	92.26	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11488.14358
5592050	1/21/2007	89	89.00	1.04	92.26	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11488.14358
5592050	4/17/2011	89	89.00	1.04	92.26	1673	17.4744%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11488.14358
5592050	6/4/1995	88	88.00	1.04	91.22	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11359.06331
5592050	5/24/1996	88	88.00	1.04	91.22	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11359.06331
5592050	5/25/1996	88	88.00	1.04	91.22	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11359.06331
5592050	2/4/2001	88	88.00	1.04	91.22	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11359.06331
5592050	11/22/2003	88	88.00	1.04	91.22	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11359.06331
5592050	11/26/2003	88	88.00	1.04	91.22	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11359.06331
5592050	12/24/2004	88	88.00	1.04	91.22	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11359.06331
5592050	5/12/2006	88	88.00	1.04	91.22	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11359.06331
5592050	1/7/2007	88	88.00	1.04	91.22	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11359.06331
5592050	1/9/2008	88	88.00	1.04	91.22	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11359.06331
5592050	2/12/2008	88	88.00	1.04	91.22	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11359.06331
5592050	1/12/2009	88	88.00	1.04	91.22	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11359.06331
5592050	5/21/2009	88	88.00	1.04	91.22	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11359.06331
5592050	5/30/2009	88	88.00	1.04	91.22	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11359.06331
5592050	11/6/2009	88	88.00	1.04	91.22	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11359.06331
5592050	12/2/2009	88	88.00	1.04	91.22	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11359.06331
5592050	5/15/2013	88	88.00	1.04	91.22	1687	17.6206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11359.06331
5592050	11/28/1992	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	12/22/1992	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	1/14/1993	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	5/1/1993	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	5/5/1993	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	7/26/1993	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	12/17/1993	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	4/25/1995	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	1/21/1996	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	6/14/1996	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	1/28/1998	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	1/29/1999	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	10/4/2000	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	3/27/2005	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	4/18/2007	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	6/12/2008	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	2/19/2009	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	3/18/2011	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	6/11/2011	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	11/29/2011	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	2/1/2013	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	6/15/2014	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	3/29/2015	87	87.00	1.04	90.18	1704	17.7982%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11229.98305
5592050	3/12/1993	86	86.00	1.04	89.15	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11100.90279
5592050	4/19/1993	86	86.00	1.04	89.15	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11100.90279
5592050	4/19/1998	86	86.00	1.04	89.15	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11100.90279
5592050	5/28/2000	86	86.00	1.04	89.15	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11100.90279
5592050	3/4/2001	86	86.00	1.04	89.15	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11100.90279
5592050	6/1/2001	86	86.00	1.04	89.15	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11100.90279
5592050	4/16/2002	86	86.00	1.04	89.15	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11100.90279
5592050	5/26/2008	86	86.00	1.04	89.15	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11100.90279
5592050	12/19/2009	86	86.00	1.04	89.15	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11100.90279
5592050	3/8/2010	86	86.00	1.04	89.15	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11100.90279

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/3/2010	86	86.00	1.04	89.15	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11100.90279
5592050	6/7/2013	86	86.00	1.04	89.15	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11100.90279
5592050	7/2/2015	86	86.00	1.04	89.15	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11100.90279
5592050	1/7/2016	86	86.00	1.04	89.15	1727	18.0384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	11100.90279
5592050	1/23/1991	85	85.00	1.04	88.11	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10971.82252
5592050	1/30/1993	85	85.00	1.04	88.11	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10971.82252
5592050	2/1/1993	85	85.00	1.04	88.11	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10971.82252
5592050	4/5/1993	85	85.00	1.04	88.11	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10971.82252
5592050	10/10/1993	85	85.00	1.04	88.11	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10971.82252
5592050	12/11/1993	85	85.00	1.04	88.11	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10971.82252
5592050	4/24/1994	85	85.00	1.04	88.11	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10971.82252
5592050	2/7/1997	85	85.00	1.04	88.11	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10971.82252
5592050	5/12/1998	85	85.00	1.04	88.11	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10971.82252
5592050	2/4/1999	85	85.00	1.04	88.11	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10971.82252
5592050	10/11/2000	85	85.00	1.04	88.11	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10971.82252
5592050	1/1/2004	85	85.00	1.04	88.11	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10971.82252
5592050	1/8/2004	85	85.00	1.04	88.11	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10971.82252
5592050	3/9/2006	85	85.00	1.04	88.11	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10971.82252
5592050	3/31/2009	85	85.00	1.04	88.11	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10971.82252
5592050	4/18/2009	85	85.00	1.04	88.11	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10971.82252
5592050	12/3/2010	85	85.00	1.04	88.11	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10971.82252
5592050	5/22/2013	85	85.00	1.04	88.11	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10971.82252
5592050	4/13/2015	85	85.00	1.04	88.11	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10971.82252
5592050	1/8/2016	85	85.00	1.04	88.11	1741	18.1847%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10971.82252
5592050	3/27/1991	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	4/20/1992	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	4/9/1993	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	5/15/1994	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	3/1/1998	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	4/23/1999	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	9/26/2000	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/17/2000	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	5/27/2001	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	2/6/2002	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	3/24/2002	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	6/5/2002	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	6/22/2002	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	1/4/2007	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	1/29/2007	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	5/29/2009	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	12/1/2009	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	1/30/2012	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	2/13/2013	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	3/10/2013	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	3/14/2014	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	5/4/2014	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	3/18/2015	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	5/31/2015	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	1/12/2016	84	84.00	1.04	87.07	1761	18.3936%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10842.74226
5592050	12/5/1990	83	83.00	1.04	86.04	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10713.66199
5592050	6/8/1993	83	83.00	1.04	86.04	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10713.66199
5592050	9/20/1993	83	83.00	1.04	86.04	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10713.66199
5592050	12/18/1994	83	83.00	1.04	86.04	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10713.66199
5592050	3/21/1997	83	83.00	1.04	86.04	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10713.66199
5592050	1/6/1998	83	83.00	1.04	86.04	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10713.66199
5592050	4/10/1998	83	83.00	1.04	86.04	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10713.66199
5592050	2/7/2001	83	83.00	1.04	86.04	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10713.66199
5592050	2/20/2001	83	83.00	1.04	86.04	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10713.66199
5592050	6/14/2001	83	83.00	1.04	86.04	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10713.66199
5592050	10/13/2001	83	83.00	1.04	86.04	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10713.66199
5592050	3/5/2002	83	83.00	1.04	86.04	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10713.66199
5592050	3/10/2004	83	83.00	1.04	86.04	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10713.66199

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	4/4/2004	83	83.00	1.04	86.04	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10713.66199
5592050	2/22/2005	83	83.00	1.04	86.04	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10713.66199
5592050	2/19/2008	83	83.00	1.04	86.04	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10713.66199
5592050	10/24/2009	83	83.00	1.04	86.04	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10713.66199
5592050	3/18/2010	83	83.00	1.04	86.04	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10713.66199
5592050	3/20/2011	83	83.00	1.04	86.04	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10713.66199
5592050	1/13/2014	83	83.00	1.04	86.04	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10713.66199
5592050	2/24/2014	83	83.00	1.04	86.04	1786	18.6547%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10713.66199
5592050	5/23/1990	82	82.00	1.04	85.00	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10584.58173
5592050	3/13/1991	82	82.00	1.04	85.00	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10584.58173
5592050	3/28/1993	82	82.00	1.04	85.00	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10584.58173
5592050	12/19/1993	82	82.00	1.04	85.00	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10584.58173
5592050	12/19/1995	82	82.00	1.04	85.00	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10584.58173
5592050	3/6/1996	82	82.00	1.04	85.00	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10584.58173
5592050	4/4/2002	82	82.00	1.04	85.00	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10584.58173
5592050	5/27/2004	82	82.00	1.04	85.00	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10584.58173
5592050	3/16/2008	82	82.00	1.04	85.00	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10584.58173
5592050	4/18/2008	82	82.00	1.04	85.00	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10584.58173
5592050	11/7/2009	82	82.00	1.04	85.00	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10584.58173
5592050	12/6/2009	82	82.00	1.04	85.00	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10584.58173
5592050	12/12/2009	82	82.00	1.04	85.00	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10584.58173
5592050	2/27/2010	82	82.00	1.04	85.00	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10584.58173
5592050	5/7/2011	82	82.00	1.04	85.00	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10584.58173
5592050	6/1/2011	82	82.00	1.04	85.00	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10584.58173
5592050	6/25/2011	82	82.00	1.04	85.00	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10584.58173
5592050	4/14/2013	82	82.00	1.04	85.00	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10584.58173
5592050	11/26/2014	82	82.00	1.04	85.00	1807	18.8740%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10584.58173
5592050	4/17/1991	81	81.00	1.04	83.96	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10455.50146
5592050	1/11/1993	81	81.00	1.04	83.96	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10455.50146
5592050	1/12/1993	81	81.00	1.04	83.96	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10455.50146
5592050	1/15/1993	81	81.00	1.04	83.96	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10455.50146

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	2/13/1993	81	81.00	1.04	83.96	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10455.50146
5592050	5/2/1993	81	81.00	1.04	83.96	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10455.50146
5592050	5/4/1993	81	81.00	1.04	83.96	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10455.50146
5592050	5/9/1999	81	81.00	1.04	83.96	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10455.50146
5592050	2/5/2001	81	81.00	1.04	83.96	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10455.50146
5592050	4/27/2009	81	81.00	1.04	83.96	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10455.50146
5592050	6/14/2009	81	81.00	1.04	83.96	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10455.50146
5592050	4/19/2012	81	81.00	1.04	83.96	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10455.50146
5592050	3/8/2013	81	81.00	1.04	83.96	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10455.50146
5592050	3/9/2013	81	81.00	1.04	83.96	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10455.50146
5592050	3/12/2013	81	81.00	1.04	83.96	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10455.50146
5592050	6/30/2013	81	81.00	1.04	83.96	1826	19.0725%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10455.50146
5592050	4/22/1990	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	12/15/1990	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	12/16/1990	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	1/4/1991	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	4/14/1991	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	3/2/1993	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	4/18/1993	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	10/26/1993	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	12/12/1993	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	12/20/1993	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	3/10/1994	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	6/5/1995	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	5/17/1999	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	6/23/2002	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	6/26/2002	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	2/18/2004	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	12/25/2004	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	1/21/2005	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	3/29/2006	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/4/2006	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	3/30/2009	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	1/19/2010	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	4/1/2010	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	12/13/2010	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	3/7/2013	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	3/31/2013	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	5/15/2015	80	80.00	1.04	82.93	1842	19.2396%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10326.4212
5592050	11/29/1992	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	12/23/1992	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	2/12/1993	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	3/13/1993	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	12/13/1993	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	2/3/1994	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	4/25/1994	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	6/15/1996	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	1/7/1998	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	5/28/1998	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	6/8/1999	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	6/29/2000	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	11/25/2000	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	12/2/2001	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	6/6/2002	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	12/25/2003	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	5/25/2004	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	1/3/2007	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	4/19/2008	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	1/1/2010	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	3/21/2011	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	12/20/2012	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	5/16/2013	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/18/2014	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	1/12/2015	79	79.00	1.04	81.89	1869	19.5216%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10197.34093
5592050	5/3/1993	78	78.00	1.04	80.86	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10068.26067
5592050	5/6/1993	78	78.00	1.04	80.86	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10068.26067
5592050	5/14/1993	78	78.00	1.04	80.86	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10068.26067
5592050	3/14/1995	78	78.00	1.04	80.86	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10068.26067
5592050	6/6/1995	78	78.00	1.04	80.86	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10068.26067
5592050	6/19/1996	78	78.00	1.04	80.86	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10068.26067
5592050	4/21/1998	78	78.00	1.04	80.86	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10068.26067
5592050	7/8/2000	78	78.00	1.04	80.86	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10068.26067
5592050	3/19/2001	78	78.00	1.04	80.86	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10068.26067
5592050	2/27/2004	78	78.00	1.04	80.86	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10068.26067
5592050	1/22/2007	78	78.00	1.04	80.86	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10068.26067
5592050	4/14/2007	78	78.00	1.04	80.86	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10068.26067
5592050	1/29/2010	78	78.00	1.04	80.86	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10068.26067
5592050	12/11/2010	78	78.00	1.04	80.86	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10068.26067
5592050	2/7/2012	78	78.00	1.04	80.86	1894	19.7827%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	10068.26067
5592050	12/17/1990	77	77.00	1.04	79.82	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9939.180401
5592050	4/6/1993	77	77.00	1.04	79.82	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9939.180401
5592050	10/3/1993	77	77.00	1.04	79.82	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9939.180401
5592050	4/5/1996	77	77.00	1.04	79.82	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9939.180401
5592050	6/13/1997	77	77.00	1.04	79.82	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9939.180401
5592050	1/29/1998	77	77.00	1.04	79.82	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9939.180401
5592050	4/20/1998	77	77.00	1.04	79.82	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9939.180401
5592050	2/19/1999	77	77.00	1.04	79.82	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9939.180401
5592050	5/2/1999	77	77.00	1.04	79.82	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9939.180401
5592050	3/8/2002	77	77.00	1.04	79.82	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9939.180401
5592050	5/30/2004	77	77.00	1.04	79.82	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9939.180401
5592050	12/25/2006	77	77.00	1.04	79.82	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9939.180401
5592050	3/27/2007	77	77.00	1.04	79.82	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9939.180401
5592050	4/25/2009	77	77.00	1.04	79.82	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9939.180401

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	4/18/2011	77	77.00	1.04	79.82	1909	19.9394%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9939.180401
5592050	5/26/1990	76	76.00	1.04	78.78	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9810.100136
5592050	5/7/1993	76	76.00	1.04	78.78	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9810.100136
5592050	6/10/1994	76	76.00	1.04	78.78	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9810.100136
5592050	6/16/1994	76	76.00	1.04	78.78	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9810.100136
5592050	2/25/1997	76	76.00	1.04	78.78	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9810.100136
5592050	2/24/1998	76	76.00	1.04	78.78	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9810.100136
5592050	7/1/1998	76	76.00	1.04	78.78	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9810.100136
5592050	2/6/2001	76	76.00	1.04	78.78	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9810.100136
5592050	6/15/2001	76	76.00	1.04	78.78	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9810.100136
5592050	3/11/2004	76	76.00	1.04	78.78	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9810.100136
5592050	12/26/2004	76	76.00	1.04	78.78	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9810.100136
5592050	4/5/2006	76	76.00	1.04	78.78	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9810.100136
5592050	5/14/2008	76	76.00	1.04	78.78	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9810.100136
5592050	3/19/2011	76	76.00	1.04	78.78	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9810.100136
5592050	4/14/2011	76	76.00	1.04	78.78	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9810.100136
5592050	6/14/2011	76	76.00	1.04	78.78	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9810.100136
5592050	12/21/2012	76	76.00	1.04	78.78	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9810.100136
5592050	3/30/2015	76	76.00	1.04	78.78	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9810.100136
5592050	11/28/2015	76	76.00	1.04	78.78	1924	20.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9810.100136
5592050	2/24/1990	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	5/25/1990	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	2/23/1993	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	3/29/1993	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	2/21/1994	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	1/27/1996	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	12/25/1997	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	3/2/1998	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	6/27/1998	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	2/7/2002	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	2/23/2002	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	4/5/2002	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	6/24/2002	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	10/20/2004	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	3/17/2008	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	1/13/2009	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	5/22/2009	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	12/7/2009	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	3/26/2010	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	4/9/2010	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	6/4/2010	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	12/4/2010	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	6/2/2011	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	4/15/2013	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	6/8/2013	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	2/3/2014	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	4/9/2014	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	3/19/2015	75	75.00	1.04	77.75	1943	20.2945%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9681.019871
5592050	2/20/1991	74	74.00	1.04	76.71	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9551.939606
5592050	3/16/1993	74	74.00	1.04	76.71	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9551.939606
5592050	4/14/1993	74	74.00	1.04	76.71	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9551.939606
5592050	12/21/1993	74	74.00	1.04	76.71	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9551.939606
5592050	4/26/1994	74	74.00	1.04	76.71	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9551.939606
5592050	6/14/2000	74	74.00	1.04	76.71	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9551.939606
5592050	11/29/2000	74	74.00	1.04	76.71	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9551.939606
5592050	12/11/2000	74	74.00	1.04	76.71	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9551.939606
5592050	4/17/2002	74	74.00	1.04	76.71	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9551.939606
5592050	11/13/2004	74	74.00	1.04	76.71	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9551.939606
5592050	1/1/2005	74	74.00	1.04	76.71	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9551.939606
5592050	3/28/2005	74	74.00	1.04	76.71	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9551.939606
5592050	1/9/2007	74	74.00	1.04	76.71	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9551.939606
5592050	3/4/2007	74	74.00	1.04	76.71	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9551.939606

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	3/19/2010	74	74.00	1.04	76.71	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9551.939606
5592050	5/20/2010	74	74.00	1.04	76.71	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9551.939606
5592050	5/15/2011	74	74.00	1.04	76.71	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9551.939606
5592050	5/9/2012	74	74.00	1.04	76.71	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9551.939606
5592050	12/10/2014	74	74.00	1.04	76.71	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9551.939606
5592050	3/25/2015	74	74.00	1.04	76.71	1971	20.5870%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9551.939606
5592050	5/24/1990	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	2/14/1993	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	4/10/1993	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	4/26/1995	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	6/16/1996	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	3/7/1997	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	4/13/1998	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	5/13/1998	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	1/30/1999	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	5/22/1999	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	11/8/2000	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	3/5/2001	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	1/2/2004	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	2/23/2005	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	3/17/2006	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	6/29/2007	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	5/31/2009	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	12/20/2009	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	12/30/2010	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	1/4/2011	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	4/15/2011	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	5/5/2014	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	10/5/2014	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	6/12/2015	73	73.00	1.04	75.67	1991	20.7959%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9422.859341
5592050	11/30/1992	72	72.00	1.04	74.64	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9293.779076

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/2/1993	72	72.00	1.04	74.64	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9293.779076
5592050	3/14/1993	72	72.00	1.04	74.64	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9293.779076
5592050	4/21/1993	72	72.00	1.04	74.64	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9293.779076
5592050	6/9/1993	72	72.00	1.04	74.64	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9293.779076
5592050	9/21/1993	72	72.00	1.04	74.64	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9293.779076
5592050	12/16/1994	72	72.00	1.04	74.64	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9293.779076
5592050	6/7/1995	72	72.00	1.04	74.64	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9293.779076
5592050	5/18/1999	72	72.00	1.04	74.64	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9293.779076
5592050	5/19/2001	72	72.00	1.04	74.64	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9293.779076
5592050	7/12/2004	72	72.00	1.04	74.64	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9293.779076
5592050	11/6/2004	72	72.00	1.04	74.64	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9293.779076
5592050	12/27/2004	72	72.00	1.04	74.64	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9293.779076
5592050	1/22/2005	72	72.00	1.04	74.64	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9293.779076
5592050	6/30/2011	72	72.00	1.04	74.64	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9293.779076
5592050	1/31/2012	72	72.00	1.04	74.64	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9293.779076
5592050	10/18/2014	72	72.00	1.04	74.64	2015	21.0466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9293.779076
5592050	3/17/1993	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811
5592050	3/30/1993	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811
5592050	4/7/1993	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811
5592050	4/8/1993	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811
5592050	10/4/1993	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811
5592050	6/10/1997	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811
5592050	1/13/1998	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811
5592050	11/18/2000	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811
5592050	2/22/2001	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811
5592050	3/20/2001	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811
5592050	12/24/2001	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811
5592050	6/7/2002	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811
5592050	3/1/2004	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811
5592050	2/24/2005	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811
5592050	2/20/2009	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/28/2010	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811
5592050	3/22/2011	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811
5592050	5/8/2011	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811
5592050	6/12/2011	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811
5592050	12/21/2011	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811
5592050	3/20/2015	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811
5592050	3/11/2016	71	71.00	1.04	73.60	2032	21.2241%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9164.698811
5592050	1/5/1991	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	1/24/1991	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	2/16/1991	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	1/16/1993	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	2/3/1993	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	3/19/1993	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	5/8/1993	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	2/26/1994	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	6/26/1994	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	11/5/1994	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	1/23/1995	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	4/6/1996	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	6/17/1996	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	1/25/1997	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	3/3/1998	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	10/12/2000	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	12/14/2000	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	1/17/2001	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	2/21/2001	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	6/23/2001	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	11/27/2003	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	2/28/2004	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	5/31/2004	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	1/23/2005	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	8/28/2006	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	2/28/2009	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	6/24/2009	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	11/8/2009	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	1/18/2010	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	1/30/2010	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	5/21/2010	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	3/23/2011	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	6/23/2011	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	5/17/2013	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	12/30/2014	70	70.00	1.04	72.56	2054	21.4539%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	9035.618546
5592050	3/26/1996	69	69.00	1.04	71.53	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8906.538281
5592050	4/26/1999	69	69.00	1.04	71.53	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8906.538281
5592050	5/10/1999	69	69.00	1.04	71.53	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8906.538281
5592050	4/13/2001	69	69.00	1.04	71.53	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8906.538281
5592050	4/6/2002	69	69.00	1.04	71.53	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8906.538281
5592050	5/19/2004	69	69.00	1.04	71.53	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8906.538281
5592050	12/28/2004	69	69.00	1.04	71.53	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8906.538281
5592050	4/19/2007	69	69.00	1.04	71.53	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8906.538281
5592050	4/20/2008	69	69.00	1.04	71.53	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8906.538281
5592050	2/21/2009	69	69.00	1.04	71.53	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8906.538281
5592050	4/26/2009	69	69.00	1.04	71.53	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8906.538281
5592050	10/29/2009	69	69.00	1.04	71.53	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8906.538281
5592050	12/21/2009	69	69.00	1.04	71.53	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8906.538281
5592050	3/1/2010	69	69.00	1.04	71.53	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8906.538281
5592050	4/2/2010	69	69.00	1.04	71.53	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8906.538281
5592050	4/20/2012	69	69.00	1.04	71.53	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8906.538281
5592050	2/14/2013	69	69.00	1.04	71.53	2089	21.8195%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8906.538281
5592050	5/4/1991	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	5/6/1991	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	12/1/1992	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	10/27/1993	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	12/22/1993	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	2/8/1997	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	3/8/1997	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	2/25/1998	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	4/11/1998	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	5/3/1999	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	11/19/2000	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	2/10/2002	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	4/20/2002	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	6/27/2002	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	1/3/2004	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	2/29/2004	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	4/5/2004	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	5/17/2004	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	1/23/2007	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	2/13/2008	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	1/2/2010	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	3/27/2010	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	5/23/2013	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	9/10/2014	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	4/14/2015	68	68.00	1.04	70.49	2106	21.9971%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8777.458016
5592050	4/14/1990	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	2/21/1991	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	3/16/1991	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	5/5/1991	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	2/4/1993	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	4/11/1993	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	7/27/1993	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	2/4/1994	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	4/7/1994	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	3/15/1995	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	6/24/1995	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	6/20/1996	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	3/22/1997	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	2/26/1998	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	5/29/1998	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	2/8/2002	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	4/18/2002	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	5/26/2004	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	12/29/2004	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	1/24/2007	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	1/30/2007	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	3/5/2007	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	3/18/2007	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	3/19/2007	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	6/13/2008	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	10/26/2008	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	5/25/2009	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	12/22/2009	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	3/20/2010	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	4/28/2010	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	6/3/2011	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	12/20/2011	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	6/9/2014	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	1/15/2016	67	67.00	1.04	69.45	2131	22.2582%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8648.377751
5592050	10/18/1990	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	3/28/1991	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	3/15/1993	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	4/22/1993	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	4/23/1993	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	7/5/1993	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	9/6/1993	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	10/28/1993	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	5/16/1994	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	11/28/1994	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	2/20/1999	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	3/6/2001	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	2/9/2002	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	2/24/2002	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	4/7/2002	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	6/8/2002	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	5/20/2003	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	1/21/2004	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	10/29/2004	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	11/20/2004	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	12/30/2004	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	12/31/2004	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	2/4/2005	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	3/30/2006	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	5/23/2009	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	3/7/2010	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	1/15/2013	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	2/2/2013	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	3/13/2013	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	4/1/2013	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	5/11/2014	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	5/19/2014	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	6/10/2014	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	12/11/2014	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	5/16/2015	66	66.00	1.04	68.42	2165	22.6133%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8519.297486
5592050	11/30/1990	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	12/6/1990	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	12/25/1990	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	12/24/1992	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	1/20/1993	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	4/24/1993	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	5/15/1993	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	10/11/1993	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	2/20/1994	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	3/11/1994	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	4/6/1994	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	6/17/1994	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	4/27/1995	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	7/1/1995	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	1/22/1996	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	4/7/1996	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	3/4/1998	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	4/22/1998	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	4/24/1999	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	2/23/2001	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	3/21/2001	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	6/16/2001	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	2/12/2002	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	2/25/2005	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	12/26/2006	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	3/22/2007	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	3/28/2007	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	5/27/2008	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	1/14/2009	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	6/15/2009	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	10/28/2009	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	3/2/2010	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	12/14/2010	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	6/9/2013	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	3/31/2015	65	65.00	1.04	67.38	2200	22.9789%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8390.217221
5592050	4/18/1991	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	4/21/1992	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	12/2/1992	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	2/5/1993	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	2/6/1993	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	2/24/1993	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	3/18/1993	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	5/9/1993	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	6/12/1993	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	4/8/1994	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	6/8/1995	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	8/2/1995	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	8/7/1995	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	6/9/1999	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	3/7/2001	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	4/19/2002	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	1/9/2004	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	3/2/2004	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	3/24/2006	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	3/31/2006	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	12/3/2006	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	1/26/2007	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	4/4/2007	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	5/16/2008	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	12/5/2010	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	2/8/2012	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	5/18/2013	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	6/16/2014	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956
5592050	1/13/2016	64	64.00	1.04	66.34	2235	23.3445%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8261.136956

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	4/15/1990	63	63.00	1.04	65.31	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8132.056691
5592050	6/9/1990	63	63.00	1.04	65.31	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8132.056691
5592050	2/7/1993	63	63.00	1.04	65.31	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8132.056691
5592050	4/13/1993	63	63.00	1.04	65.31	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8132.056691
5592050	7/7/1993	63	63.00	1.04	65.31	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8132.056691
5592050	7/9/1998	63	63.00	1.04	65.31	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8132.056691
5592050	11/30/2000	63	63.00	1.04	65.31	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8132.056691
5592050	3/8/2001	63	63.00	1.04	65.31	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8132.056691
5592050	7/10/2003	63	63.00	1.04	65.31	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8132.056691
5592050	3/12/2004	63	63.00	1.04	65.31	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8132.056691
5592050	1/24/2005	63	63.00	1.04	65.31	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8132.056691
5592050	9/18/2008	63	63.00	1.04	65.31	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8132.056691
5592050	4/10/2010	63	63.00	1.04	65.31	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8132.056691
5592050	4/10/2014	63	63.00	1.04	65.31	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8132.056691
5592050	3/21/2015	63	63.00	1.04	65.31	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8132.056691
5592050	4/20/2015	63	63.00	1.04	65.31	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8132.056691
5592050	7/3/2015	63	63.00	1.04	65.31	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8132.056691
5592050	1/14/2016	63	63.00	1.04	65.31	2264	23.6474%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8132.056691
5592050	1/17/1993	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	2/8/1993	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	7/9/1993	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	4/9/1994	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	3/8/1996	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	6/14/1997	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	3/5/1998	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	4/12/1998	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	6/28/1998	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	2/5/1999	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	3/11/1999	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	5/4/1999	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	6/16/1999	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	9/25/2000	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	10/13/2000	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	11/20/2000	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	3/13/2001	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	6/9/2002	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	6/28/2002	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	9/3/2003	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	4/6/2004	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	5/28/2004	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	4/21/2008	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	11/9/2009	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	3/3/2010	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	5/6/2014	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	6/1/2015	62	62.00	1.04	64.27	2282	23.8354%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	8002.976426
5592050	4/11/1990	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	4/23/1990	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	5/17/1991	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	6/21/1996	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	1/27/1998	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	5/14/1998	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	8/6/1998	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	2/6/1999	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	4/25/1999	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	5/11/1999	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	2/11/2002	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	2/3/2005	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	5/26/2006	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	5/15/2008	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	7/10/2008	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	3/21/2010	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	3/22/2010	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/4/2010	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	5/22/2010	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	5/9/2011	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	2/1/2012	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	3/27/2013	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	3/15/2014	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	11/27/2014	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	12/31/2014	61	61.00	1.04	63.23	2309	24.1174%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7873.896161
5592050	5/27/1990	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	1/6/1991	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	5/14/1991	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	2/15/1993	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	2/21/1993	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	5/11/1993	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	10/29/1993	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	12/23/1993	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	1/24/1994	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	2/5/1994	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	3/6/1994	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	3/13/1994	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	1/28/1996	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	5/19/1999	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	10/26/2001	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	2/25/2002	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	4/7/2004	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	2/26/2005	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	1/25/2007	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	6/1/2009	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	1/17/2010	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	1/31/2010	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	7/1/2011	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/10/2012	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	6/10/2013	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	3/10/2016	60	60.00	1.04	62.20	2334	24.3785%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7744.815897
5592050	5/10/1990	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	6/24/1990	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	2/22/1991	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	5/10/1993	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	9/13/1993	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	10/5/1993	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	6/18/1994	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	11/6/1994	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	12/19/1994	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	6/9/1995	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	8/6/1995	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	3/7/1996	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	4/8/1996	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	1/14/1998	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	1/30/1998	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	4/23/1998	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	5/30/1998	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	7/10/1998	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	3/22/2001	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	12/3/2001	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	2/19/2002	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	6/10/2002	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	5/28/2003	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	6/12/2003	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	11/7/2004	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	1/25/2005	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	3/29/2005	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	5/5/2006	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/24/2006	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	7/5/2007	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	6/14/2008	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	3/11/2009	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	1/5/2011	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	5/19/2013	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	5/20/2014	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	6/6/2014	59	59.00	1.04	61.16	2360	24.6501%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7615.735632
5592050	3/19/1992	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	12/25/1992	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	2/9/1993	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	2/11/1993	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	4/12/1993	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	6/10/1993	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	8/3/1993	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	10/12/1993	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	3/12/1994	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	3/14/1994	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	5/17/1994	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	1/12/1995	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	3/16/1995	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	6/10/1995	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	6/25/1995	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	6/22/1996	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	2/9/1997	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	5/15/1998	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	12/1/2000	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	3/9/2001	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	10/14/2001	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	12/25/2001	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	11/28/2003	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/28/2005	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	5/13/2006	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	1/10/2007	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	1/12/2007	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	1/31/2007	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	4/12/2007	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	2/14/2008	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	4/22/2008	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	5/17/2008	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	5/24/2009	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	1/3/2010	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	3/4/2010	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	3/6/2010	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	3/25/2010	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	4/29/2010	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	1/24/2012	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	2/25/2014	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	12/16/2014	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	4/15/2015	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	1/16/2016	58	58.00	1.04	60.12	2396	25.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7486.655367
5592050	3/29/1991	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	5/13/1991	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	2/10/1993	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	5/12/1993	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	5/18/1993	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	12/24/1993	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	6/11/1997	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	3/6/1998	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	5/21/1999	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	3/11/2001	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	3/12/2001	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	6/17/2001	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	5/18/2004	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	10/24/2004	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	3/18/2006	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	3/7/2007	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	4/11/2007	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	2/27/2008	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	2/22/2009	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	11/10/2009	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	3/5/2010	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	4/11/2010	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	5/10/2011	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	6/24/2011	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	3/14/2013	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	3/15/2013	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	3/16/2013	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	3/18/2013	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	1/14/2014	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	2/4/2014	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	4/2/2014	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	10/19/2014	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	1/13/2015	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	2/28/2016	57	57.00	1.04	59.09	2439	25.4752%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7357.575102
5592050	1/7/1991	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	4/19/1991	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	2/25/1993	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	2/6/1994	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	3/15/1994	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	6/26/1995	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	3/23/1997	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	2/23/1999	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	5/20/1999	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	7/9/2000	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	10/14/2000	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	10/15/2000	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	1/22/2004	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	3/13/2004	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	3/14/2004	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	4/8/2004	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	5/20/2004	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	1/26/2005	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	1/29/2005	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	2/27/2005	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	3/6/2007	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	4/1/2007	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	7/14/2008	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	6/25/2009	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	2/20/2010	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	3/23/2010	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	6/29/2010	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	12/15/2010	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	2/9/2012	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	4/21/2012	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	7/1/2013	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	10/9/2014	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	11/30/2014	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	12/12/2014	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	1/2/2015	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	5/17/2015	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	6/13/2015	56	56.00	1.04	58.05	2473	25.8304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7228.494837
5592050	5/28/1990	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	12/26/1990	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	1/25/1991	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	5/16/1993	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	2/19/1994	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	2/27/1994	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	3/5/1994	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	6/27/1994	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	11/23/1994	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	1/24/1995	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	1/29/1995	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	4/30/1995	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	6/23/1996	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	3/7/1998	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	7/2/1998	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	6/12/1999	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	12/17/2000	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	3/10/2001	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	6/2/2001	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	6/29/2002	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	5/13/2003	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	1/10/2004	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	10/30/2004	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	11/14/2004	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	1/11/2007	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	3/20/2007	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	3/29/2007	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	2/20/2008	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	1/15/2009	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	2/1/2010	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	4/30/2010	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	5/16/2011	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	6/4/2011	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/20/2013	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	6	mg/L	23.1	28.3	1844.003785	7099.414572
5592050	3/22/2015	55	55.00	1.04	57.01	2510	26.2168%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	7099.414572
5592050	1/8/1991	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	3/2/1991	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	1/18/1993	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	2/16/1993	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	7/28/1993	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	8/13/1993	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	3/27/1994	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	6/8/1994	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	11/11/1994	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	6/11/1995	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	2/26/1996	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	2/10/1997	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	3/25/1997	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	4/24/1998	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	2/21/1999	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	3/12/1999	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	8/6/2000	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	12/2/2000	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	3/23/2001	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	4/14/2001	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	6/24/2001	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	12/13/2001	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	2/13/2002	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	2/15/2002	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	3/3/2004	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	5/20/2005	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	4/23/2008	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	2/23/2009	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	2/26/2009	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	1/4/2010	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	1/6/2011	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	6/5/2011	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	7/2/2011	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	4/2/2013	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	5/7/2014	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	1/1/2015	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	1/6/2015	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	4/1/2015	54	54.00	1.04	55.98	2545	26.5824%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6970.334307
5592050	12/3/1992	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	12/4/1992	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	12/26/1992	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	10/6/1993	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	10/16/1993	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	5/18/1994	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	6/11/1994	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	6/19/1994	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	6/23/1994	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	2/28/1995	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	3/17/1995	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	7/2/1995	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	3/9/1996	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	4/9/1996	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	6/30/2000	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	12/26/2003	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	5/24/2004	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	11/21/2004	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	1/27/2005	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	1/30/2005	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	3/30/2005	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	12/27/2006	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	3/31/2007	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	4/20/2007	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	7/18/2007	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	2/29/2008	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	5/18/2008	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	2/24/2009	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	2/25/2009	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	11/11/2009	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	5/1/2010	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	5/5/2010	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	5/12/2010	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	12/6/2010	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	3/24/2011	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	2/15/2013	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	5/24/2013	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	4/27/2014	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	5/12/2014	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	5/10/2015	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	8/6/2015	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	2/29/2016	53	53.00	1.04	54.94	2583	26.9793%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6841.254042
5592050	2/16/1990	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	1/9/1991	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	5/19/1993	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	6/13/1993	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	9/7/1993	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	2/7/1994	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	12/20/1994	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	3/27/1996	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	6/24/1996	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	12/26/1997	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	5/16/1998	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/31/1998	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	3/10/1999	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	6/10/1999	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	6/11/1999	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	10/16/2000	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	11/21/2000	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	6/18/2001	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	2/20/2003	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	5/29/2003	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	3/16/2004	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	2/2/2005	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	5/19/2005	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	3/19/2006	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	4/1/2006	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	3/21/2007	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	6/24/2007	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	4/26/2008	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	6/2/2009	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	4/12/2010	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	5/23/2010	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	7/3/2011	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	12/15/2011	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	2/3/2013	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	4/11/2014	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	11/29/2014	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	12/22/2014	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	4/3/2015	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	4/16/2015	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	3/12/2016	52	52.00	1.04	53.90	2625	27.4180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6712.173777
5592050	4/16/1990	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	2/23/1991	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/16/1991	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	7/6/1993	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	4/28/1995	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	5/2/1995	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	6/12/1995	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	8/8/1995	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	2/11/1997	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	3/24/1997	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	4/25/1998	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	7/6/1998	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	4/15/2001	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	2/16/2002	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	6/30/2002	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	1/23/2004	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	10/18/2004	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	1/28/2005	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	3/1/2005	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	5/6/2006	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	3/10/2007	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	4/26/2007	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	4/24/2008	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	4/25/2008	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	3/1/2009	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	11/12/2009	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	11/13/2009	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	3/24/2010	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	4/24/2010	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	7/4/2011	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	2/2/2012	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	2/10/2012	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	5/11/2012	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/11/2013	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	4/14/2014	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	5/21/2014	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	6/17/2014	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	10/20/2014	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	12/13/2014	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	2/9/2015	51	51.00	1.04	52.87	2665	27.8358%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6583.093512
5592050	4/24/1990	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	12/27/1990	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	1/10/1991	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	2/17/1991	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	2/24/1991	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	2/26/1993	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	5/17/1993	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	10/7/1993	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	12/25/1993	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	2/8/1994	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	2/18/1994	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	3/4/1994	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	3/18/1994	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	4/3/1994	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	3/20/1995	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	5/1/1995	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	7/26/1995	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	1/29/1996	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	4/10/1996	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	1/27/1997	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	5/4/1997	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	1/15/1998	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	1/31/1998	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	6/5/1998	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/22/1999	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	2/24/1999	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	11/22/2000	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	12/16/2000	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	1/14/2001	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	1/18/2001	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	3/15/2001	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	2/14/2002	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	2/26/2002	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	11/29/2003	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	3/15/2004	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	3/17/2004	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	11/19/2004	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	10/28/2006	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	2/1/2007	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	3/28/2009	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	1/5/2010	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	4/13/2010	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	1/7/2011	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	5/11/2011	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	1/17/2012	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	3/19/2013	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	5/25/2013	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	12/15/2014	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	3/23/2015	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	4/2/2015	50	50.00	1.04	51.83	2705	28.2536%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6454.013247
5592050	3/30/1991	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	10/13/1993	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	10/30/1993	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	5/19/1994	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	6/20/1994	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/27/1994	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	2/27/1995	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	3/18/1995	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	4/29/1995	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	6/27/1995	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	3/28/1996	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	4/11/1996	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	4/12/1996	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	6/12/1997	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	4/26/1998	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	2/27/1999	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	2/28/1999	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	3/9/1999	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	6/17/1999	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	8/3/2000	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	10/17/2000	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	3/14/2001	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	3/24/2001	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	2/19/2003	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	6/15/2003	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	1/11/2004	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	11/11/2004	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	4/14/2005	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	3/21/2006	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	6/3/2006	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	11/16/2006	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	3/14/2007	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	6/15/2008	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	3/2/2009	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	11/14/2009	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	2/2/2010	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	12/16/2010	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	6/6/2011	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	2/9/2013	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	2/18/2014	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	6/7/2014	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	7/14/2014	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	10/6/2014	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	12/14/2014	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	4/21/2015	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	11/29/2015	49	49.00	1.04	50.79	2755	28.7759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6324.932982
5592050	4/20/1990	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	5/29/1990	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	12/1/1990	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	12/7/1990	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	4/22/1992	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	12/27/1992	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	1/19/1993	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	2/17/1993	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	10/8/1993	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	2/9/1994	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	3/16/1994	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	6/28/1994	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	1/25/1995	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	3/19/1995	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	3/24/1996	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	6/25/1996	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	12/1/1997	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	5/22/1998	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	8/7/1998	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	3/13/1999	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	5/23/1999	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/23/2000	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	11/30/2003	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	1/25/2004	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	3/25/2004	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	6/16/2004	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	3/20/2006	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	12/4/2006	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	3/13/2007	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	3/30/2007	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	4/3/2007	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	4/5/2007	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	4/27/2007	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	12/22/2007	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	1/10/2008	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	3/3/2009	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	6/3/2009	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	2/18/2012	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	4/22/2012	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	2/8/2013	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	5/14/2014	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	1/18/2015	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	4/19/2015	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	7/4/2015	48	48.00	1.04	49.76	2801	29.2563%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6195.852717
5592050	6/10/1990	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	5/7/1991	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	12/10/1992	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	2/27/1993	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	12/26/1993	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	2/10/1994	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	2/17/1994	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	5/20/1994	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	6/13/1995	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	8/11/1995	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	7/19/1996	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	2/1/1998	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	2/16/1998	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	2/25/1999	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	7/12/2000	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	12/3/2000	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	12/4/2000	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	5/20/2001	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	5/28/2001	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	6/19/2001	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	12/4/2001	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	2/17/2002	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	5/21/2004	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	11/15/2004	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	11/22/2004	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	1/31/2005	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	3/31/2005	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	11/17/2006	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	12/28/2006	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	3/8/2007	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	3/9/2007	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	10/8/2008	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	1/16/2009	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	6/26/2009	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	1/6/2010	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	1/16/2010	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	3/25/2011	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	4/4/2011	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	1/16/2013	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	3/17/2013	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	4/3/2013	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	1/14/2015	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	5/18/2015	47	47.00	1.04	48.72	2845	29.7159%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	6066.772452
5592050	4/20/1991	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	12/7/1992	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	10/31/1993	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	2/11/1994	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	3/17/1994	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	5/25/1994	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	6/21/1994	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	9/5/1994	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	11/29/1994	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	12/21/1994	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	5/4/1995	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	5/5/1995	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	7/3/1995	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	3/29/1996	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	4/13/1996	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	3/26/1997	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	3/28/1997	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	7/11/2000	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	12/5/2000	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	12/26/2001	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	7/1/2002	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	12/28/2003	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	1/24/2004	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	3/18/2004	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	11/1/2004	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	11/23/2004	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	5/14/2006	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/21/2008	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	5/19/2008	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	5/28/2008	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	11/15/2009	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	1/7/2010	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	2/3/2010	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	4/14/2010	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	4/15/2010	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	4/23/2010	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	5/24/2010	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	5/17/2011	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	6/13/2011	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	2/3/2012	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	6/12/2013	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	7/2/2013	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	11/28/2014	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	3/24/2015	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	4/4/2015	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	4/17/2015	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	6/14/2015	46	46.00	1.04	47.68	2888	30.1650%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5937.692187
5592050	4/12/1990	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	12/28/1990	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	1/26/1991	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	2/18/1991	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	3/31/1991	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	12/5/1992	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	12/28/1992	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	5/20/1993	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	6/14/1993	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	12/27/1993	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	2/12/1994	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	2/15/1994	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	2/16/1994	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	2/28/1994	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	11/24/1994	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	1/30/1995	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	5/3/1995	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	6/26/1996	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	3/29/1997	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	1/16/1998	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	7/3/1998	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	7/10/2000	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	11/24/2000	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	12/15/2000	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	12/18/2000	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	5/21/2003	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	7/18/2003	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	1/12/2004	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	3/2/2005	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	4/12/2005	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	5/7/2006	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	3/12/2007	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	12/23/2007	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	4/28/2008	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	5/2/2008	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	5/20/2008	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	10/27/2008	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	6/4/2009	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	1/8/2010	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	1/15/2010	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	5/6/2010	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	6/5/2010	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	12/7/2010	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	1/8/2011	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	3/26/2011	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	3/25/2013	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	5/8/2014	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	2/8/2015	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	2/10/2015	45	45.00	1.04	46.65	2935	30.6559%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5808.611922
5592050	6/25/1990	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	2/25/1991	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	4/1/1991	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	5/18/1991	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	11/13/1993	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	2/13/1994	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	4/4/1994	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	4/5/1994	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	6/14/1995	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	12/20/1995	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	3/27/1997	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	5/17/1998	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	6/15/2000	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	9/27/2000	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	10/18/2000	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	12/7/2000	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	5/21/2001	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	6/25/2001	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	2/27/2002	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	6/13/2003	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	12/27/2003	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	4/9/2004	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	10/31/2004	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	11/8/2004	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/1/2005	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	3/23/2006	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	10/27/2006	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	12/13/2006	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	3/11/2007	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	4/6/2007	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	4/21/2007	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	7/4/2007	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	12/13/2007	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	4/27/2008	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	5/8/2008	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	6/28/2008	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	9/19/2008	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	3/4/2009	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	3/25/2009	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	1/9/2010	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	1/10/2010	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	4/16/2010	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	5/11/2010	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	5/13/2010	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	5/12/2011	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	2/17/2012	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	5/12/2012	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	6/16/2013	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	5/13/2014	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	10/21/2014	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	12/17/2014	44	44.00	1.04	45.61	2984	31.1677%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5679.531657
5592050	4/17/1990	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	4/25/1990	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	6/6/1990	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	10/11/1990	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	4/13/1991	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	4/21/1991	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	12/6/1992	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	2/18/1993	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	2/28/1993	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	10/14/1993	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	12/28/1993	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	2/14/1994	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	3/3/1994	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	5/21/1994	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	6/29/1994	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	1/26/1995	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	4/15/1996	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	6/27/1996	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	2/12/1997	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	7/11/1998	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	3/3/1999	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	3/14/1999	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	6/25/1999	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	9/10/2000	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	3/25/2001	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	2/18/2002	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	5/14/2003	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	5/29/2004	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	3/3/2005	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	3/4/2005	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	3/22/2006	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	11/15/2006	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	4/29/2008	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	5/9/2008	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	6/16/2008	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/16/2008	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	1/11/2010	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	1/12/2010	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	1/13/2010	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	1/14/2010	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	5/7/2010	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	5/18/2011	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	2/11/2012	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	2/19/2012	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	2/4/2013	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	3/16/2014	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	4/12/2014	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	6/24/2014	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	1/17/2015	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	4/5/2015	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	4/6/2015	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	4/18/2015	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	6/2/2015	43	43.00	1.04	44.57	3035	31.7004%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5550.451393
5592050	5/30/1990	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	2/26/1991	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	4/4/1991	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	4/22/1991	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	12/11/1992	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	5/21/1993	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	8/4/1993	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	9/8/1993	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	3/1/1994	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	3/2/1994	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	3/19/1994	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	3/20/1994	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	3/21/1994	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	3/28/1994	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	2/3/1995	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	5/7/1995	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	1/30/1996	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	3/30/1996	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	2/19/1997	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	6/15/1997	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	4/27/1998	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	6/1/1998	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	2/26/1999	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	5/24/1999	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	6/23/2000	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	12/8/2000	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	1/19/2001	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	3/26/2001	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	2/28/2002	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	7/2/2002	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	1/13/2004	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	1/26/2004	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	10/21/2004	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	11/16/2004	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	3/5/2005	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	5/16/2006	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	2/2/2007	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	4/2/2007	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	4/22/2007	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	1/11/2008	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	5/1/2008	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	5/3/2008	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	5/25/2008	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	3/5/2009	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	3/6/2009	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	2/4/2010	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	4/17/2010	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	5/25/2010	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	12/10/2010	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	3/27/2011	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	5/13/2011	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	6/7/2011	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	7/5/2011	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	4/23/2012	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	3/24/2013	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	4/4/2013	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	4/13/2014	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	10/10/2014	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	1/15/2015	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	4/7/2015	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	5/9/2015	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	5/30/2015	42	42.00	1.04	43.54	3088	32.2540%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5421.371128
5592050	12/8/1990	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	2/27/1991	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	3/1/1991	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	3/3/1991	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	4/2/1991	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	4/5/1991	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	5/23/1993	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	7/10/1993	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	7/29/1993	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	11/1/1993	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	11/3/1993	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	11/4/1993	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	5/22/1994	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/25/1994	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	12/22/1994	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	3/21/1995	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	5/6/1995	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	6/15/1995	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	7/4/1995	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	3/10/1996	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	4/14/1996	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	4/16/1996	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	6/28/1996	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	8/17/1997	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	2/2/1998	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	2/12/1998	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	5/18/1998	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	7/4/1998	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	10/19/2000	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	3/29/2001	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	4/16/2001	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	6/3/2001	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	10/16/2001	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	3/19/2004	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	3/20/2004	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	4/10/2004	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	4/11/2004	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	5/22/2004	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	3/7/2005	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	5/15/2006	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	12/5/2006	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	12/12/2006	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	12/29/2006	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	4/25/2007	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	12/12/2007	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	2/25/2008	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	4/30/2008	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	6/5/2009	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	6/30/2010	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	12/17/2010	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	2/21/2012	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	4/24/2012	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	5/13/2012	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	2/16/2013	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	3/20/2013	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	3/26/2013	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	6/13/2013	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	5/9/2014	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	5/22/2014	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	10/29/2014	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	12/1/2014	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	1/16/2015	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	1/26/2015	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	4/8/2015	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	4/22/2015	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	1/17/2016	41	41.00	1.04	42.50	3150	32.9016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5292.290863
5592050	1/27/1991	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	2/28/1991	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	4/3/1991	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	4/23/1992	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	2/19/1993	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	5/31/1993	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	10/15/1993	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	11/5/1993	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	12/29/1993	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	1/1/1994	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	6/22/1994	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	1/27/1995	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	1/31/1995	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	2/2/1995	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	3/6/1995	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	3/22/1995	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	2/27/1996	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	3/12/1996	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	3/13/1996	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	1/26/1997	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	1/28/1997	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	3/30/1997	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	4/5/1997	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	5/5/1997	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	4/28/1998	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	12/6/2000	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	3/27/2001	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	3/30/2001	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	6/26/2001	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	12/5/2001	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	12/27/2001	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	3/1/2002	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	3/20/2003	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	12/11/2003	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	1/14/2004	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	3/21/2004	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	3/24/2004	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	5/12/2004	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	5/8/2006	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	5/17/2006	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	2/16/2007	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	4/23/2007	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	5/21/2008	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	1/17/2009	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	6/27/2009	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	2/5/2010	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	2/19/2010	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	4/18/2010	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	5/8/2010	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	5/16/2010	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	5/26/2010	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	9/13/2010	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	12/8/2010	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	12/9/2010	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	1/9/2011	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	2/22/2012	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	2/23/2012	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	4/25/2012	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	4/5/2013	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	2/5/2014	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	11/6/2014	40	40.00	1.04	41.46	3216	33.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5163.210598
5592050	2/25/1990	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	5/11/1990	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	6/11/1990	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	3/6/1991	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	4/23/1991	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	5/8/1991	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	5/22/1993	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	5/24/1993	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	6/1/1993	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	12/30/1993	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/23/1994	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	3/14/1996	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	6/29/1996	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	6/2/1998	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	4/9/1999	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	6/18/1999	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	7/1/2000	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	3/28/2001	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	4/1/2001	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	10/27/2001	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	7/3/2002	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	12/1/2003	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	12/10/2003	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	4/12/2004	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	5/1/2004	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	10/25/2004	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	10/26/2004	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	11/17/2004	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	4/1/2005	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	4/2/2005	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	5/27/2006	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	12/14/2006	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	4/7/2007	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	5/29/2008	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	10/9/2008	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	3/8/2009	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	4/22/2010	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	5/14/2010	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	6/3/2010	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	7/27/2010	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	9/6/2010	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	4/5/2011	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	1/25/2012	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	2/20/2012	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	2/5/2013	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	2/25/2013	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	3/22/2013	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	3/23/2013	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	7/3/2013	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	6/18/2014	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	11/5/2014	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	2/27/2016	39	39.00	1.04	40.43	3277	34.2281%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	5034.130333
5592050	4/13/1990	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	4/26/1990	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	4/28/1990	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	5/6/1990	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	5/31/1990	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	6/3/1990	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	7/22/1990	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	3/4/1991	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	3/5/1991	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	4/6/1991	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	4/7/1991	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	4/8/1991	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	5/19/1991	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	3/20/1992	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	12/8/1992	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	12/9/1992	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	2/20/1993	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	3/1/1993	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	11/2/1993	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	12/31/1993	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	3/22/1994	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	3/23/1994	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	3/24/1994	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	6/2/1994	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	6/30/1994	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	12/23/1994	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	2/4/1995	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	3/5/1995	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	6/16/1995	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	8/3/1995	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	3/11/1996	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	3/15/1996	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	4/19/1996	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	5/19/1998	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	3/1/1999	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	3/2/1999	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	3/6/1999	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	8/7/2000	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	10/21/2000	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	12/19/2000	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	3/31/2001	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	5/7/2003	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	1/15/2004	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	2/3/2004	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	4/13/2004	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	5/23/2004	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	6/17/2004	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	3/6/2005	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	4/15/2005	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	5/9/2006	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	5/10/2006	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/18/2006	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	12/30/2006	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	2/22/2008	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	9/3/2008	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	3/7/2009	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	3/12/2009	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	3/14/2009	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	6/6/2009	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	4/19/2010	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	4/20/2010	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	4/21/2010	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	5/27/2010	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	3/28/2011	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	5/19/2011	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	2/12/2012	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	2/16/2012	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	5/14/2012	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	3/21/2013	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	4/6/2013	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	10/28/2014	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	12/18/2014	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	5/19/2015	38	38.00	1.04	39.39	3329	34.7713%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4905.050068
5592050	4/9/1991	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	5/9/1991	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	6/15/1993	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	8/12/1993	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	1/2/1994	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	3/26/1994	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	3/29/1994	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	5/24/1994	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	5/26/1994	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/1/1995	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	1/31/1996	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	3/5/1996	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	4/17/1996	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	4/18/1996	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	4/20/1996	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	6/30/1996	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	11/26/1996	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	3/31/1997	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	4/6/1997	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	1/17/1998	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	2/11/1998	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	6/8/1998	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	3/20/2000	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	5/29/2000	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	7/13/2000	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	10/20/2000	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	4/7/2001	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	4/10/2001	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	2/23/2003	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	3/21/2003	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	12/5/2003	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	1/27/2004	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	3/23/2004	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	5/2/2004	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	6/1/2004	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	11/18/2004	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	3/8/2005	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	5/18/2006	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	12/6/2006	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	5/10/2008	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/30/2008	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	6/17/2008	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	7/28/2008	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	3/9/2009	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	3/10/2009	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	3/13/2009	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	3/15/2009	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	3/26/2009	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	6/28/2009	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	2/6/2010	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	6/6/2010	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	7/22/2010	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	12/18/2010	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	6/8/2011	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	7/6/2011	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	12/22/2011	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	3/3/2012	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	1/17/2013	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	2/17/2013	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	4/7/2013	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	6/17/2013	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	4/15/2014	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	5/10/2014	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	10/22/2014	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	12/3/2014	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	12/5/2014	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	12/19/2014	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	1/7/2015	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	1/25/2015	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	5/20/2015	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803
5592050	7/5/2015	37	37.00	1.04	38.35	3402	35.5337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4775.969803

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	6/1/1990	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	6/12/1990	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	6/26/1990	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	12/2/1990	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	4/24/1992	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	7/28/1992	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	12/12/1992	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	12/14/1992	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	9/9/1993	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	4/2/1994	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	11/12/1994	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	11/30/1994	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	6/17/1995	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	7/5/1995	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	7/27/1995	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	7/1/1996	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	5/6/1997	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	12/27/1997	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	2/5/1998	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	5/20/1998	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	5/21/1998	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	6/6/1998	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	7/5/1998	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	3/15/1999	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	10/22/2000	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	4/6/2001	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	4/8/2001	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	5/22/2001	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	5/23/2001	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	12/6/2001	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	7/4/2002	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/15/2003	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	1/16/2004	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	4/14/2004	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	11/9/2004	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	4/3/2005	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	1/30/2006	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	12/11/2006	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	12/15/2006	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	2/3/2007	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	12/14/2007	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	5/22/2008	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	10/28/2008	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	11/15/2008	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	11/17/2008	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	1/18/2009	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	6/8/2009	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	10/25/2009	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	5/10/2010	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	5/15/2010	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	5/28/2010	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	6/2/2010	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	6/9/2010	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	3/29/2011	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	3/31/2011	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	4/1/2011	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	11/30/2011	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	1/18/2012	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	3/2/2012	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	4/26/2012	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	6/23/2013	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	10/7/2014	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	10/30/2014	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	11/7/2014	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	1/19/2015	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	2/1/2015	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	2/7/2015	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	5/21/2015	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	12/15/2015	36	36.00	1.04	37.32	3473	36.2753%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4646.889538
5592050	4/27/1990	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	5/7/1990	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	6/2/1990	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	12/9/1990	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	1/28/1991	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	4/24/1991	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	5/10/1991	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	5/20/1991	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	4/1/1994	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	12/24/1994	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	2/5/1995	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	3/1/1995	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	6/18/1995	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	7/2/1996	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	11/25/1996	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	2/14/1997	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	2/18/1997	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	6/16/1997	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	5/25/1999	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	1/20/2001	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	4/2/2001	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	4/20/2001	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	6/27/2001	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	12/28/2001	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	3/13/2003	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	5/6/2003	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	12/4/2003	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	3/22/2004	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	3/11/2005	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	4/4/2005	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	1/29/2006	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	6/2/2006	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	4/8/2007	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	4/13/2007	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	4/24/2007	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	4/28/2007	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	2/23/2008	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	2/24/2008	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	5/4/2008	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	5/23/2008	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	7/15/2008	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	9/20/2008	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	3/16/2009	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	6/7/2009	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	2/7/2010	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	5/9/2010	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	12/29/2010	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	2/6/2011	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	3/30/2011	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	2/13/2012	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	3/18/2012	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	5/15/2012	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	12/22/2012	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	2/7/2013	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	2/18/2013	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	4/8/2013	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	4/10/2013	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	6/14/2013	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	6/22/2013	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	7/10/2013	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	5/23/2014	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	4/23/2015	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	4/25/2015	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	6/3/2015	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	2/26/2016	35	35.00	1.04	36.28	3542	36.9960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4517.809273
5592050	5/5/1990	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	4/27/1991	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	12/13/1992	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	1/3/1994	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	3/30/1994	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	7/1/1994	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	8/14/1994	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	3/23/1995	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	3/27/1995	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	8/1/1995	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	2/13/1997	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	4/4/1997	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	5/3/1997	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	5/8/1997	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	2/3/1998	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	2/4/1998	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	2/6/1998	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	6/3/1998	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	6/4/1998	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	7/12/1998	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	3/4/1999	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	3/5/1999	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	3/17/1999	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	6/19/1999	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	12/10/2000	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	4/3/2001	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	4/17/2001	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	5/29/2001	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	12/19/2003	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	4/15/2004	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	4/16/2004	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	4/25/2004	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	11/10/2004	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	4/5/2005	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	6/1/2006	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	11/19/2006	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	12/7/2006	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	2/28/2008	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	6/9/2009	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	2/8/2010	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	2/18/2010	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	5/29/2010	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	7/1/2010	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	12/19/2010	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	1/10/2011	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	4/6/2011	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	5/20/2011	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	6/9/2011	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	2/24/2012	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	3/19/2012	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	4/6/2012	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	2/6/2013	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/19/2013	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	12/22/2013	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	3/17/2014	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	10/11/2014	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	12/2/2014	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	12/20/2014	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	2/2/2015	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	2/11/2015	34	34.00	1.04	35.24	3607	37.6750%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4388.729008
5592050	4/10/1990	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	4/18/1990	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	4/29/1990	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	10/19/1990	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	4/26/1991	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	5/3/1991	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	5/21/1991	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	7/30/1993	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	8/5/1993	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	3/25/1994	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	3/31/1994	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	6/3/1994	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	11/26/1994	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	12/25/1994	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	2/23/1995	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	2/1/1996	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	3/16/1996	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	7/3/1996	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	4/1/1997	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	4/2/1997	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	4/3/1997	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	3/16/1999	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	4/9/2001	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/24/2001	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	12/7/2001	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	1/30/2002	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	7/5/2002	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	5/8/2003	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	6/16/2003	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	12/2/2003	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	12/3/2003	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	12/6/2003	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	12/9/2003	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	12/14/2003	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	12/16/2003	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	12/22/2003	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	1/28/2004	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	4/17/2004	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	5/13/2004	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	7/11/2004	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	3/12/2005	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	4/6/2005	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	4/7/2005	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	6/30/2007	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	5/5/2008	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	5/24/2008	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	6/18/2008	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	3/17/2009	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	3/18/2009	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	3/19/2009	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	3/27/2009	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	6/29/2009	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	2/9/2010	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	5/30/2010	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	12/20/2010	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	12/21/2010	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	4/7/2011	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	4/8/2011	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	5/21/2011	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	2/20/2013	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	2/24/2013	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	4/9/2013	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	6/15/2013	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	6/18/2013	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	7/4/2013	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	10/23/2014	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	10/31/2014	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	11/9/2014	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	12/21/2014	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	1/20/2015	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	4/26/2015	33	33.00	1.04	34.21	3667	38.3017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4259.648743
5592050	5/4/1990	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	6/13/1990	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	12/10/1990	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	1/29/1991	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	3/7/1991	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	4/10/1991	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	4/25/1991	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	4/28/1991	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	4/29/1991	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	5/25/1993	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	6/3/1993	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	6/16/1993	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	7/11/1993	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	8/6/1993	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/6/1993	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	1/4/1994	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	5/27/1994	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	7/2/1994	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	6/19/1995	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	7/6/1995	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	2/23/1996	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	4/21/1996	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	1/18/1998	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	1/22/1998	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	1/23/1998	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	1/26/1998	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	2/13/1998	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	5/31/1999	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	6/24/1999	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	6/17/2000	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	12/9/2000	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	12/20/2000	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	4/4/2001	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	4/5/2001	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	4/19/2001	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	11/29/2001	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	2/21/2003	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	3/14/2003	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	5/16/2003	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	6/20/2003	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	12/8/2003	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	2/4/2004	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	2/15/2004	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	4/21/2004	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	3/9/2005	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	3/10/2005	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	4/16/2005	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	5/19/2006	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	5/28/2006	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	12/8/2006	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	4/9/2007	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	12/24/2007	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	5/6/2008	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	5/7/2008	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	10/29/2008	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	1/19/2009	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	3/24/2009	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	2/10/2010	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	2/11/2010	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	2/17/2010	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	5/31/2010	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	6/10/2010	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	2/7/2011	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	2/13/2011	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	4/2/2011	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	6/10/2011	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	7/9/2011	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	12/16/2011	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	2/14/2012	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	3/8/2012	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	5/16/2012	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	2/21/2013	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	2/22/2013	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	2/23/2013	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	6/19/2013	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	4/16/2014	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/24/2014	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	6/25/2014	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	10/24/2014	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	11/1/2014	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	11/4/2014	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	11/8/2014	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	12/4/2014	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	1/21/2015	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	1/27/2015	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	2/3/2015	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	4/24/2015	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	11/30/2015	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	3/1/2016	32	32.00	1.04	33.17	3738	39.0432%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4130.568478
5592050	2/26/1990	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	5/8/1990	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	6/27/1990	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	3/12/1991	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	5/22/1991	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	4/25/1992	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	6/2/1993	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	11/15/1994	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	12/1/1994	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	12/26/1994	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	6/20/1995	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	2/14/1996	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	3/23/1996	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	2/15/1997	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	2/14/1998	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	6/7/1998	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	7/13/1998	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	7/23/1998	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	8/8/1998	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	4/10/1999	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	5/26/1999	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	7/2/2000	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	10/23/2000	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	6/28/2001	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	10/28/2001	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	2/15/2003	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	12/15/2003	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	4/18/2004	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	5/3/2004	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	4/17/2005	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	5/21/2005	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	5/31/2006	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	11/30/2006	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	12/9/2006	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	12/16/2006	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	2/4/2007	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	12/15/2007	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	12/16/2007	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	1/12/2008	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	6/19/2008	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	7/16/2009	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	2/12/2010	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	2/13/2010	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	2/14/2010	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	2/15/2010	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	2/16/2010	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	6/1/2010	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	6/7/2010	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	12/22/2010	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	5/22/2011	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	2/15/2012	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	3/12/2012	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	3/13/2012	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	3/20/2012	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	4/5/2012	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	6/24/2013	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	3/18/2014	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	5/27/2014	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	6/19/2014	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	10/12/2014	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	5/22/2015	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	7/6/2015	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	12/1/2015	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	12/22/2015	31	31.00	1.04	32.13	3827	39.9728%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	4001.488213
5592050	2/27/1990	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	4/19/1990	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	1/30/1991	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	4/12/1991	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	11/2/1992	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	11/10/1992	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	5/26/1993	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	5/28/1993	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	6/17/1993	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	1/5/1994	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	7/3/1994	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	2/6/1995	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	2/24/1996	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	2/28/1996	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	3/17/1996	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	7/4/1996	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	1/29/1997	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	1/31/1997	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	4/12/1997	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	5/7/1997	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	5/9/1997	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	12/24/1997	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	1/21/1998	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	1/24/1998	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	2/7/1998	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	7/22/1998	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	1/15/1999	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	1/17/1999	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	6/20/1999	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	10/25/2000	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	10/26/2000	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	1/21/2001	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	4/18/2001	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	4/21/2001	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	12/8/2001	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	12/29/2001	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	7/6/2002	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	12/31/2002	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	3/19/2003	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	5/22/2003	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	12/7/2003	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	12/12/2003	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	2/2/2004	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	2/16/2004	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	4/22/2004	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	4/26/2004	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	3/13/2005	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	4/8/2005	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	4/18/2005	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	5/20/2006	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	11/14/2006	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	12/10/2006	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	2/13/2007	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	4/10/2007	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	5/5/2007	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	6/29/2008	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	3/20/2009	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	3/22/2009	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	3/23/2009	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	6/30/2009	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	7/15/2009	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	6/8/2010	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	12/23/2010	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	1/11/2011	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	1/15/2011	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	1/16/2011	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	1/24/2011	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	1/25/2011	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	2/5/2011	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	2/8/2011	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	4/3/2011	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	5/23/2011	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	7/10/2011	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	2/29/2012	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	3/1/2012	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	3/4/2012	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	3/7/2012	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	3/9/2012	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	4/27/2012	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	4/28/2012	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	1/18/2013	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	6/20/2013	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	7/11/2013	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	4/17/2014	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	5/25/2014	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	10/25/2014	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	11/10/2014	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	2/12/2015	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	3/7/2015	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	6/4/2015	30	30.00	1.04	31.10	3891	40.6413%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3872.407948
5592050	5/9/1990	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	6/4/1990	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	6/19/1990	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	12/11/1990	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	12/12/1990	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	3/8/1991	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	4/11/1991	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	4/30/1991	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	5/23/1991	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	4/26/1992	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	6/8/1992	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	5/27/1993	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	8/17/1993	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	11/7/1993	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	11/12/1993	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	1/6/1994	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	5/28/1994	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	12/2/1994	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	12/27/1994	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	12/28/1994	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	2/26/1995	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	8/12/1995	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	2/2/1996	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	7/5/1996	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	7/21/1996	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	2/16/1997	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	12/23/1997	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	12/28/1997	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	2/8/1998	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	2/15/1998	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	4/6/1999	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	7/14/2000	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	10/24/2000	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	12/21/2000	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	5/30/2001	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	6/29/2001	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	3/22/2003	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	5/9/2003	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	12/13/2003	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	12/18/2003	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	1/29/2004	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	4/20/2004	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	6/2/2004	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	10/23/2004	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	3/22/2005	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	4/22/2005	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	6/4/2006	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	8/27/2006	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	12/17/2006	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	4/29/2007	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/11/2008	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	9/21/2008	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	10/30/2008	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	1/23/2009	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	3/21/2009	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	6/11/2010	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	7/2/2010	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	1/17/2011	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	2/25/2012	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	3/5/2012	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	3/6/2012	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	3/11/2012	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	3/24/2012	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	1/29/2013	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	2/6/2014	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	7/15/2014	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	11/2/2014	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	11/11/2014	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	1/11/2015	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	1/24/2015	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	2/4/2015	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	7/7/2015	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	12/2/2015	29	29.00	1.04	30.06	3981	41.5814%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3743.327683
5592050	2/17/1990	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	6/14/1990	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	1/31/1991	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	3/9/1991	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	5/1/1991	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	5/24/1991	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	8/24/1993	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	9/10/1993	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/8/1993	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	1/7/1994	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	5/29/1994	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	11/14/1994	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	12/3/1994	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	3/24/1995	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	3/28/1995	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	2/15/1996	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	2/16/1996	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	2/17/1996	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	1/19/1998	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	1/25/1998	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	3/8/1999	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	3/18/1999	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	5/27/1999	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	6/16/2000	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	10/27/2000	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	5/25/2001	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	10/12/2001	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	5/17/2003	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	12/17/2003	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	2/6/2004	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	2/14/2004	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	4/19/2004	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	4/23/2004	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	10/22/2004	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	4/9/2005	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	4/10/2005	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	4/19/2005	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	5/21/2006	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	5/29/2006	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/30/2006	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	10/29/2006	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	11/20/2006	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	2/5/2007	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	5/4/2007	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	6/20/2008	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	11/18/2008	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	1/20/2009	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	7/24/2010	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	12/24/2010	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	12/28/2010	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	1/23/2011	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	2/9/2011	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	2/12/2011	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	5/24/2011	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	2/27/2012	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	3/10/2012	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	3/14/2012	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	3/21/2012	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	3/23/2012	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	4/7/2012	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	5/17/2012	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	7/5/2013	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	1/15/2014	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	5/26/2014	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	6/20/2014	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	10/26/2014	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	10/27/2014	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	11/3/2014	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	1/22/2015	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	2/13/2015	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/23/2015	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	7/9/2015	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	12/16/2015	28	28.00	1.04	29.02	4054	42.3438%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3614.247418
5592050	6/5/1990	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	3/10/1991	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	3/11/1991	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	5/25/1991	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	1/24/1992	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	3/21/1992	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	7/15/1992	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	5/29/1993	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	5/30/1993	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	7/12/1993	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	11/9/1993	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	11/11/1993	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	1/8/1994	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	5/30/1994	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	6/4/1994	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	7/4/1994	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	11/13/1994	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	12/7/1994	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	2/7/1995	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	2/22/1995	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	2/24/1995	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	3/2/1995	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	3/4/1995	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	3/26/1995	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	8/21/1995	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	2/13/1996	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	2/18/1996	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	2/20/1996	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/21/1996	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	2/22/1996	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	3/18/1996	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	7/6/1996	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	4/7/1997	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	4/11/1997	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	4/21/1997	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	6/17/1997	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	1/20/1998	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	2/9/1998	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	3/7/1999	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	6/21/1999	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	6/26/1999	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	1/22/2001	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	6/30/2001	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	10/29/2001	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	12/9/2001	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	12/30/2001	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	1/1/2003	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	12/21/2003	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	2/5/2004	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	2/7/2004	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	2/17/2004	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	5/4/2004	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	5/5/2004	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	6/11/2004	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	3/14/2005	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	3/17/2005	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	3/18/2005	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	3/19/2005	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	4/11/2005	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	4/20/2005	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	4/23/2005	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	8/8/2006	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	12/18/2006	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	4/30/2007	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	5/28/2007	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	12/17/2007	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	12/21/2007	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	1/22/2009	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	1/24/2009	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	7/1/2009	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	7/5/2009	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	7/3/2010	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	11/24/2010	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	12/25/2010	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	1/12/2011	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	1/26/2011	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	1/29/2011	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	1/30/2011	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	1/31/2011	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	2/4/2011	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	2/11/2011	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	2/26/2012	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	2/28/2012	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	3/15/2012	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	3/22/2012	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	5/18/2012	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	7/6/2013	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	2/26/2014	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	4/18/2014	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	11/12/2014	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	1/28/2015	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	1/29/2015	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	2/5/2015	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	2/14/2015	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	5/24/2015	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	5/25/2015	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	6/5/2015	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	7/8/2015	27	27.00	1.04	27.99	4127	43.1063%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3485.167153
5592050	4/30/1990	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	6/15/1990	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	6/18/1990	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	6/28/1990	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	6/30/1990	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	2/1/1991	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	5/2/1991	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	5/26/1991	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	4/27/1992	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	6/7/1992	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	6/18/1993	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	8/7/1993	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	11/10/1993	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	1/9/1994	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	11/16/1994	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	11/20/1994	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	12/4/1994	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	12/29/1994	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	1/1/1995	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	3/3/1995	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	3/25/1995	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	7/7/1995	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	2/3/1996	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/19/1996	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	3/2/1996	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	3/20/1996	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	3/22/1996	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	7/7/1996	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	2/17/1997	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	5/10/1997	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	5/12/1997	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	1/16/1999	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	5/28/1999	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	7/3/2000	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	11/6/2000	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	12/22/2000	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	1/25/2001	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	4/22/2001	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	7/1/2001	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	7/7/2002	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	2/24/2003	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	3/29/2003	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	5/18/2003	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	12/20/2003	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	1/30/2004	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	2/13/2004	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	4/24/2004	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	7/13/2004	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	3/15/2005	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	3/16/2005	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	4/21/2005	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	5/22/2006	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	2/6/2007	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	5/1/2007	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/2/2007	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	5/3/2007	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	1/21/2009	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	12/26/2010	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	1/14/2011	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	1/18/2011	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	2/1/2011	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	2/10/2011	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	7/11/2011	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	12/28/2011	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	3/17/2012	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	3/25/2012	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	1/19/2013	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	6/21/2013	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	3/19/2014	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	5/28/2014	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	1/23/2015	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	1/30/2015	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	2/6/2015	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	4/27/2015	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	5/26/2015	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	6/7/2015	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	3/2/2016	26	26.00	1.04	26.95	4225	44.1299%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3356.086888
5592050	2/28/1990	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	12/13/1990	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	11/20/1991	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	7/13/1993	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	1/10/1994	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	1/15/1994	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	6/5/1994	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	12/31/1994	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	2/8/1995	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	2/21/1995	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	2/25/1995	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	7/28/1995	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	2/12/1996	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	2/25/1996	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	3/1/1996	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	3/19/1996	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	7/8/1996	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	12/1/1996	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	1/21/1997	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	1/30/1997	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	4/10/1997	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	4/13/1997	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	5/11/1997	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	12/29/1997	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	2/10/1998	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	7/14/1998	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	1/14/1999	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	3/21/1999	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	10/28/2000	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	1/23/2001	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	4/23/2001	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	4/24/2001	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	10/17/2001	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	12/12/2001	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	3/18/2003	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	5/19/2003	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	5/23/2003	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	6/17/2003	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	9/4/2003	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	2/1/2004	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	2/8/2004	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	2/11/2004	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	2/12/2004	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	4/27/2004	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	4/30/2004	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	3/20/2005	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	5/13/2005	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	5/23/2006	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	6/5/2006	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	12/19/2006	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	2/17/2007	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	6/22/2007	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	12/11/2007	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	12/18/2007	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	12/19/2007	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	1/8/2008	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	1/13/2008	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	6/21/2008	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	7/16/2008	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	10/10/2008	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	10/31/2008	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	11/19/2008	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	11/20/2008	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	1/25/2009	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	7/2/2009	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	12/27/2010	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	1/13/2011	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	1/19/2011	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	1/20/2011	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	1/21/2011	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	1/22/2011	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	1/27/2011	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	1/28/2011	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	2/2/2011	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	2/3/2011	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	12/23/2011	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	1/19/2012	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	3/16/2012	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	4/8/2012	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	12/23/2012	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	1/12/2013	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	6/25/2013	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	9/15/2014	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	1/8/2015	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	1/31/2015	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	2/15/2015	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	4/28/2015	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	4/29/2015	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	5/27/2015	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	7/11/2015	25	25.00	1.04	25.92	4302	44.9342%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3227.006624
5592050	5/3/1990	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	6/16/1990	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	6/29/1990	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	5/27/1991	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	3/22/1992	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	4/15/1992	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	4/29/1992	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	4/30/1992	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	6/19/1993	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	6/20/1993	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	8/14/1993	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	1/11/1994	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	1/14/1994	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	5/31/1994	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	6/6/1994	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	12/5/1994	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	12/8/1994	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	12/9/1994	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	12/10/1994	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	2/11/1995	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	3/29/1995	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	3/30/1995	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	12/21/1995	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	2/4/1996	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	2/11/1996	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	2/29/1996	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	3/3/1996	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	3/21/1996	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	4/8/1997	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	5/13/1997	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	7/18/1998	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	3/19/1999	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	3/20/1999	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	3/23/1999	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	5/29/1999	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	6/22/1999	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	6/27/1999	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	1/24/2001	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	5/1/2001	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	10/30/2001	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	12/10/2001	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	12/31/2001	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/10/2002	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	1/31/2004	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	2/9/2004	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	2/10/2004	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	4/28/2004	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	4/29/2004	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	4/26/2005	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	5/22/2005	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	7/12/2006	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	12/20/2006	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	2/7/2007	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	5/6/2007	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	9/22/2008	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	7/4/2009	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	7/6/2009	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	10/26/2009	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	7/4/2010	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	7/28/2010	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	7/12/2011	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	11/23/2011	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	12/29/2011	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	5/19/2012	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	7/7/2013	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	4/19/2014	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	4/25/2014	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	5/29/2014	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	6/21/2014	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	2/16/2015	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	4/30/2015	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	5/8/2015	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	6/6/2015	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/10/2015	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	12/3/2015	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	12/17/2015	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	12/21/2015	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	3/3/2016	24	24.00	1.04	24.88	4392	45.8742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	3097.926359
5592050	7/1/1990	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	5/30/1991	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	1/23/1992	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	3/30/1992	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	4/28/1992	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	6/21/1993	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	9/11/1993	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	1/12/1994	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	1/13/1994	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	1/16/1994	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	6/1/1994	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	7/5/1994	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	12/6/1994	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	12/11/1994	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	12/30/1994	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	1/2/1995	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	2/9/1995	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	2/20/1995	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	7/8/1995	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	7/9/1995	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	2/10/1996	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	7/9/1996	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	7/22/1996	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	11/30/1996	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	4/9/1997	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	5/14/1997	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	8/18/1997	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	12/2/1997	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	7/15/1998	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	7/16/1998	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	11/10/1998	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	3/22/1999	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	3/24/1999	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	4/1/1999	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	4/11/1999	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	5/30/1999	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	6/23/1999	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	7/4/2000	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	7/15/2000	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	10/30/2000	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	10/31/2000	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	12/23/2000	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	4/26/2001	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	7/2/2001	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	10/31/2001	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	12/11/2001	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	1/1/2002	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	7/8/2002	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	2/16/2003	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	3/23/2003	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	5/24/2003	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	8/2/2003	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	5/6/2004	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	6/3/2004	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	6/18/2004	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	3/21/2005	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	4/24/2005	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	4/25/2005	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	4/27/2005	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	5/12/2005	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	6/6/2006	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	11/21/2006	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	2/8/2007	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	2/19/2007	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	5/27/2007	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	12/20/2007	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	11/1/2008	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	11/14/2008	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	1/26/2009	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	7/3/2009	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	10/9/2009	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	10/27/2009	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	9/7/2010	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	9/14/2010	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	7/13/2011	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	3/26/2012	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	3/28/2012	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	4/9/2012	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	4/10/2012	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	1/20/2013	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	4/20/2014	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	4/21/2014	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	2/17/2015	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	7/12/2015	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	3/4/2016	23	23.00	1.04	23.84	4470	46.6889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2968.846094
5592050	5/1/1990	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	6/17/1990	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	11/27/1990	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/31/1991	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	3/31/1992	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	8/18/1993	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	1/17/1994	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	6/7/1994	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	11/17/1994	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	2/16/1995	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	3/31/1995	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	4/1/1995	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	2/5/1996	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	2/9/1996	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	4/22/1997	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	4/4/1999	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	9/28/2000	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	10/29/2000	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	11/1/2000	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	11/2/2000	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	12/27/2000	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	12/28/2000	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	1/26/2001	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	4/25/2001	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	4/27/2001	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	7/12/2002	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	7/13/2002	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	2/22/2003	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	3/15/2003	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	5/25/2003	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	5/11/2004	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	6/12/2004	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	6/7/2006	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	2/9/2007	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	12/25/2007	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	6/22/2008	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	11/2/2008	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	12/1/2008	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	1/27/2009	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	7/23/2010	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	3/27/2012	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	3/29/2012	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	3/30/2012	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	3/31/2012	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	4/11/2012	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	5/20/2012	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	11/13/2014	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	11/23/2014	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	1/9/2015	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	1/10/2015	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	2/18/2015	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	2/19/2015	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	5/1/2015	22	22.00	1.04	22.81	4555	47.5768%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2839.765829
5592050	3/1/1990	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	10/12/1990	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	12/14/1990	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	5/28/1991	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	5/29/1991	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	5/1/1992	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	7/20/1992	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	8/8/1993	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	1/18/1994	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	7/20/1994	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	12/12/1994	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	2/10/1995	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/12/1995	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	2/19/1995	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	4/2/1995	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	4/12/1995	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	7/22/1995	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	2/8/1996	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	7/10/1996	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	4/14/1997	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	4/19/1997	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	6/18/1997	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	12/30/1997	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	7/17/1998	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	7/19/1998	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	3/25/1999	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	4/2/1999	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	4/3/1999	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	5/30/2000	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	8/24/2000	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	11/3/2000	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	12/24/2000	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	12/26/2000	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	12/29/2000	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	4/28/2001	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	7/3/2001	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	11/1/2001	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	11/24/2001	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	11/25/2001	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	11/28/2001	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	1/2/2002	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	1/13/2002	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	1/14/2002	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/9/2002	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	7/11/2002	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	3/30/2003	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	6/21/2003	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	4/30/2005	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	5/14/2005	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	5/23/2005	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	1/31/2006	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	6/8/2006	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	8/10/2006	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	10/30/2006	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	11/22/2006	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	2/10/2007	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	2/12/2007	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	2/18/2007	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	6/23/2008	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	7/3/2008	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	9/6/2008	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	11/3/2008	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	11/4/2008	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	11/5/2008	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	11/6/2008	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	11/7/2008	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	11/21/2008	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	11/24/2008	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	11/25/2008	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	1/28/2009	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	7/9/2009	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	10/14/2009	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	11/22/2011	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	12/27/2011	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	12/30/2011	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	4/1/2012	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	4/2/2012	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	4/13/2012	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	9/6/2012	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	1/28/2013	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	7/8/2013	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	7/12/2013	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	2/27/2014	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	3/20/2014	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	4/22/2014	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	6/22/2014	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	9/16/2014	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	11/14/2014	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	2/20/2015	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	2/21/2015	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	5/2/2015	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	5/28/2015	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	11/27/2015	21	21.00	1.04	21.77	4608	48.1304%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2710.685564
5592050	3/2/1990	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	5/2/1990	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	10/20/1990	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	3/23/1992	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	4/1/1992	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	7/31/1992	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	6/22/1993	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	1/19/1994	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	1/23/1994	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	7/6/1994	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	7/19/1994	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	12/13/1994	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/17/1995	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	2/18/1995	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	4/3/1995	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	7/10/1995	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	8/13/1995	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	2/6/1996	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	2/7/1996	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	3/4/1996	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	11/7/1996	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	4/15/1997	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	4/16/1997	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	4/20/1997	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	5/15/1997	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	9/10/1997	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	8/9/1998	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	3/28/1999	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	3/29/1999	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	3/31/1999	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	4/7/1999	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	6/28/1999	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	12/25/2000	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	12/30/2000	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	1/4/2001	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	1/5/2001	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	5/2/2001	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	7/4/2001	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	10/15/2001	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	10/18/2001	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	11/2/2001	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	1/3/2002	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	1/11/2002	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	1/12/2002	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	12/19/2002	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	12/30/2002	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	2/25/2003	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	3/17/2003	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	5/26/2003	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	6/18/2003	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	4/28/2005	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	4/29/2005	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	6/11/2006	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	11/7/2006	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	11/11/2006	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	11/13/2006	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	2/11/2007	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	5/7/2007	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	7/1/2007	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	1/14/2008	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	6/30/2008	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	9/23/2008	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	11/8/2008	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	1/29/2009	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	7/7/2009	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	7/10/2009	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	7/17/2009	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	7/5/2010	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	12/17/2011	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	12/24/2011	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	1/20/2012	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	4/3/2012	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	4/12/2012	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	5/21/2012	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/22/2012	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	12/24/2012	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	1/21/2013	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	7/9/2013	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	7/23/2013	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	2/7/2014	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	5/30/2014	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	7/16/2014	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	2/22/2015	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	2/23/2015	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	2/24/2015	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	2/25/2015	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	2/26/2015	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	5/3/2015	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	5/4/2015	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	5/29/2015	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	7/13/2015	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	12/14/2015	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	3/5/2016	20	20.00	1.04	20.73	4701	49.1017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2581.605299
5592050	2/18/1990	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	3/3/1990	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	7/2/1990	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	5/2/1992	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	6/9/1992	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	7/29/1992	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	1/20/1994	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	7/8/1994	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	1/3/1995	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	2/13/1995	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	4/4/1995	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	4/7/1995	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	4/8/1995	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	7/11/1996	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	4/18/1997	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	5/18/1997	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	5/19/1997	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	5/26/1997	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	1/5/1998	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	3/26/1999	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	3/27/1999	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	4/8/1999	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	4/12/1999	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	4/14/1999	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	1/6/2001	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	4/29/2001	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	11/3/2001	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	1/4/2002	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	1/10/2002	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	1/15/2002	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	1/24/2002	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	3/24/2003	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	5/27/2003	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	5/30/2003	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	5/7/2004	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	6/4/2004	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	5/1/2005	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	6/9/2006	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	6/10/2006	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	6/12/2006	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	11/23/2006	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	11/24/2006	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	11/25/2006	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/8/2007	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	5/9/2007	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	6/24/2008	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	7/17/2008	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	10/11/2008	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	11/9/2008	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	11/13/2008	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	11/22/2008	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	11/23/2008	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	11/26/2008	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	11/30/2008	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	12/2/2008	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	12/10/2008	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	1/30/2009	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	7/8/2009	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	7/14/2011	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	4/4/2012	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	5/23/2012	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	1/22/2013	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	3/21/2014	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	9/12/2014	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	2/27/2015	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	3/6/2015	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	5/5/2015	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	12/4/2015	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	12/18/2015	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	3/7/2016	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	3/8/2016	19	19.00	1.04	19.70	4794	50.0731%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2452.525034
5592050	4/3/1990	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	7/23/1990	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	6/1/1991	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/21/1991	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	3/18/1992	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	5/5/1992	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	5/13/1992	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	8/9/1993	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	1/21/1994	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	11/7/1994	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	11/18/1994	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	12/14/1994	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	12/15/1994	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	2/15/1995	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	4/6/1995	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	4/9/1995	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	7/23/1995	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	8/22/1995	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	7/15/1996	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	4/17/1997	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	4/23/1997	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	4/28/1997	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	12/31/1997	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	3/30/1999	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	4/5/1999	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	4/13/1999	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	6/18/2000	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	7/16/2000	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	11/4/2000	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	12/31/2000	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	1/3/2001	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	1/7/2001	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	1/27/2001	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	4/30/2001	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/3/2001	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	5/7/2001	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	5/8/2001	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	7/5/2001	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	1/5/2002	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	1/9/2002	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	1/19/2002	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	1/20/2002	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	1/21/2002	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	1/23/2002	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	1/29/2002	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	3/5/2003	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	3/28/2003	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	6/19/2003	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	7/11/2003	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	8/3/2003	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	6/5/2004	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	6/6/2004	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	6/13/2004	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	5/15/2005	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	5/24/2005	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	12/29/2005	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	11/26/2006	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	11/27/2006	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	5/10/2007	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	12/26/2007	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	6/27/2008	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	7/4/2008	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	7/29/2008	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	9/24/2008	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	11/12/2008	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/27/2008	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	11/28/2008	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	1/31/2009	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	7/11/2009	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	7/12/2009	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	7/6/2010	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	12/25/2011	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	12/31/2011	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	5/24/2012	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	1/16/2014	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	3/28/2014	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	4/23/2014	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	4/26/2014	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	5/31/2014	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	6/23/2014	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	6/26/2014	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	11/22/2014	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	2/28/2015	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	3/1/2015	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	3/2/2015	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	3/3/2015	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	5/6/2015	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	3/6/2016	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	3/9/2016	18	18.00	1.04	18.66	4865	50.8147%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2323.444769
5592050	3/4/1990	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	4/2/1990	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	7/3/1990	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	6/2/1991	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	3/24/1992	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	4/2/1992	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	7/30/1992	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/3/1992	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	6/23/1993	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	8/10/1993	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	8/15/1993	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	1/22/1994	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	7/7/1994	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	2/14/1995	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	4/11/1995	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	7/11/1995	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	11/11/1995	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	7/12/1996	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	7/13/1996	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	7/16/1996	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	7/23/1996	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	4/24/1997	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	5/16/1997	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	5/17/1997	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	5/20/1997	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	5/27/1997	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	6/3/1997	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	6/4/1997	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	6/19/1997	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	12/12/1997	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	6/29/1999	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	9/24/2000	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	11/5/2000	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	1/1/2001	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	1/2/2001	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	1/13/2001	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	10/19/2001	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	11/4/2001	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/26/2001	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	1/6/2002	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	1/7/2002	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	1/8/2002	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	1/16/2002	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	1/17/2002	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	1/18/2002	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	1/22/2002	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	1/25/2002	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	2/17/2003	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	3/12/2003	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	4/5/2003	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	6/22/2003	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	6/7/2004	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	5/2/2005	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	5/3/2005	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	6/13/2006	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	6/22/2006	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	7/21/2006	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	11/8/2006	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	11/10/2006	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	11/28/2006	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	11/29/2006	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	5/11/2007	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	5/29/2007	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	6/25/2007	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	12/27/2007	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	12/29/2007	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	1/15/2008	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	6/25/2008	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	6/26/2008	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/10/2008	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	11/29/2008	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	12/7/2008	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	12/11/2008	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	2/1/2009	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	2/2/2009	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	7/29/2010	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	1/21/2012	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	11/13/2012	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	1/23/2013	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	7/13/2013	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	3/11/2014	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	3/22/2014	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	4/24/2014	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	6/3/2014	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	8/8/2014	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	9/17/2014	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	3/4/2015	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	3/5/2015	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	5/7/2015	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	7/14/2015	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	12/5/2015	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	12/19/2015	17	17.00	1.04	17.62	4954	51.7443%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2194.364504
5592050	3/5/1990	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	4/1/1990	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	8/13/1990	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	6/3/1991	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	3/25/1992	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	3/26/1992	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	4/3/1992	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	5/3/1992	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/12/1992	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	6/24/1993	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	8/11/1993	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	1/4/1995	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	1/11/1995	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	12/22/1995	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	7/14/1996	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	12/2/1996	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	4/29/1997	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	12/11/1997	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	1/1/1998	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	7/20/1998	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	8/10/1998	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	1/8/2001	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	1/12/2001	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	1/28/2001	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	5/4/2001	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	5/6/2001	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	11/5/2001	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	11/6/2001	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	11/7/2001	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	11/8/2001	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	11/27/2001	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	1/26/2002	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	1/27/2002	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	1/28/2002	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	7/14/2002	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	3/16/2003	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	3/31/2003	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	5/8/2004	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	6/22/2004	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/4/2005	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	5/5/2005	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	5/16/2005	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	5/25/2005	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	7/5/2005	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	12/28/2005	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	2/1/2006	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	6/18/2006	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	6/23/2006	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	7/13/2006	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	5/12/2007	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	5/31/2007	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	12/28/2007	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	1/16/2008	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	7/1/2008	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	7/18/2008	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	9/25/2008	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	10/12/2008	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	10/16/2008	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	11/11/2008	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	12/3/2008	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	12/4/2008	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	12/9/2008	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	12/12/2008	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	2/3/2009	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	2/4/2009	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	7/13/2009	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	7/18/2009	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	8/4/2009	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	7/7/2010	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	7/8/2010	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/9/2010	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	9/8/2010	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	9/15/2010	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	7/15/2011	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	12/18/2011	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	12/26/2011	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	1/1/2012	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	5/25/2012	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	12/25/2012	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	1/24/2013	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	1/25/2013	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	1/27/2013	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	2/28/2014	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	3/29/2014	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	11/15/2014	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	12/6/2015	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	12/7/2015	16	16.00	1.04	16.59	5046	52.7052%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	2065.284239
5592050	2/19/1990	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	3/9/1990	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	3/11/1990	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	3/12/1990	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	3/15/1990	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	3/30/1990	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	3/31/1990	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	4/4/1990	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	7/4/1990	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	10/21/1990	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	8/7/1991	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	3/29/1992	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	5/4/1992	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	5/6/1992	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/25/1993	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	6/30/1993	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	11/4/1994	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	11/19/1994	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	4/10/1995	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	4/16/1995	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	7/12/1995	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	7/29/1995	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	7/17/1996	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	4/25/1997	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	4/27/1997	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	4/30/1997	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	5/25/1997	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	5/31/1997	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	11/30/1997	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	1/2/1998	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	8/4/1998	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	1/13/1999	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	6/30/1999	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	4/20/2000	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	1/9/2001	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	1/11/2001	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	5/5/2001	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	5/9/2001	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	11/9/2001	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	11/10/2001	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	3/4/2003	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	3/25/2003	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	3/27/2003	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	5/31/2003	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	5/9/2004	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	6/8/2004	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	6/19/2004	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	6/21/2004	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	5/6/2005	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	5/7/2005	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	5/8/2005	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	5/9/2005	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	5/10/2005	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	5/11/2005	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	5/17/2005	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	5/18/2005	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	5/26/2005	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	5/27/2005	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	6/14/2006	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	6/15/2006	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	6/17/2006	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	6/19/2006	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	8/20/2006	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	11/9/2006	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	5/19/2007	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	6/1/2007	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	7/19/2007	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	12/30/2007	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	12/31/2007	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	1/17/2008	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	7/2/2008	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	7/5/2008	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	10/17/2008	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	12/5/2008	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	12/6/2008	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	12/13/2008	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	12/14/2008	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	12/15/2008	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	2/5/2009	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	7/14/2009	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	12/1/2011	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	12/19/2011	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	1/2/2012	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	1/26/2013	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	7/14/2013	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	2/8/2014	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	3/10/2014	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	3/27/2014	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	3/30/2014	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	3/31/2014	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	4/1/2014	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	6/1/2014	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	6/2/2014	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	6/27/2014	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	7/17/2014	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	12/8/2015	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	12/9/2015	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	12/20/2015	15	15.00	1.04	15.55	5133	53.6140%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1936.203974
5592050	3/6/1990	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	3/10/1990	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	3/13/1990	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	3/14/1990	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	10/13/1990	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	6/4/1991	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	7/12/1991	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	11/30/1991	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	2/15/1992	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	3/27/1992	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	4/4/1992	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	4/5/1992	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	4/11/1992	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	5/9/1992	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	8/1/1992	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	6/26/1993	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	8/16/1993	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	8/19/1993	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	7/9/1994	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	4/5/1995	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	8/14/1995	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	5/1/1997	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	5/2/1997	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	5/28/1997	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	5/30/1997	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	6/2/1997	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	6/5/1997	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	6/6/1997	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	6/20/1997	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	1/3/1998	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	7/21/1998	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	7/24/1998	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	7/1/1999	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	5/31/2000	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	7/17/2000	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	8/2/2000	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	9/11/2000	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	1/10/2001	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	5/10/2001	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	5/11/2001	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/6/2001	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	10/20/2001	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	10/23/2001	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	11/11/2001	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	11/12/2001	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	11/13/2001	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	11/14/2001	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	11/15/2001	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	11/16/2001	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	11/19/2001	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	11/23/2001	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	2/18/2003	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	2/26/2003	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	3/2/2003	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	3/6/2003	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	3/26/2003	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	4/6/2003	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	7/19/2003	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	9/5/2003	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	5/10/2004	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	6/9/2004	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	6/10/2004	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	6/14/2004	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	7/14/2004	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	5/28/2005	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	6/16/2006	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	10/31/2006	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	11/6/2006	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	11/12/2006	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	7/2/2007	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	8/19/2007	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	1/1/2008	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	7/19/2008	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	9/26/2008	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	10/13/2008	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	10/14/2008	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	10/15/2008	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	10/18/2008	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	10/19/2008	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	7/19/2009	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	7/25/2009	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	8/5/2009	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	10/15/2009	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	7/10/2010	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	7/30/2010	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	9/16/2010	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	5/26/2012	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	5/29/2012	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	6/1/2012	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	12/21/2013	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	3/9/2014	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	3/23/2014	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	6/28/2014	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	11/16/2014	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	7/15/2015	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	12/10/2015	14	14.00	1.04	14.51	5231	54.6376%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1807.123709
5592050	3/8/1990	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	3/16/1990	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	3/29/1990	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	4/5/1990	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	7/5/1990	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	1/25/1992	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	4/10/1992	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	4/12/1992	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	5/7/1992	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	5/8/1992	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	5/10/1992	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	5/14/1992	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	6/10/1992	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	6/29/1993	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	1/5/1995	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	4/14/1995	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	7/18/1996	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	7/24/1996	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	4/26/1997	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	5/21/1997	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	5/29/1997	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	1/4/1998	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	8/11/1998	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	7/2/1999	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	8/18/2000	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	8/25/2000	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	9/23/2000	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	5/12/2001	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	9/9/2001	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	11/17/2001	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	11/18/2001	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	11/20/2001	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	11/21/2001	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	11/22/2001	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	7/15/2002	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	1/2/2003	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	6/3/2003	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	6/7/2003	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	6/23/2003	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	6/15/2004	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	5/29/2005	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	5/30/2005	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	5/31/2005	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	6/3/2005	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	6/4/2005	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	2/2/2006	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	6/20/2006	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	8/11/2006	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	8/19/2006	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	5/13/2007	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	5/16/2007	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	5/30/2007	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	7/6/2007	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	7/6/2008	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	8/2/2008	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	9/27/2008	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	9/28/2008	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	10/23/2008	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	12/8/2008	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	12/16/2008	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	12/17/2008	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	12/18/2008	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	7/11/2010	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	7/13/2010	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	7/31/2010	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	9/9/2010	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	7/16/2011	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	1/3/2012	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	1/22/2012	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	5/27/2012	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	5/28/2012	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	6/2/2012	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	7/15/2013	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	3/1/2014	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	3/24/2014	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	3/25/2014	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	3/26/2014	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	7/16/2015	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	11/18/2015	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	12/11/2015	13	13.00	1.04	13.48	5327	55.6403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1678.043444
5592050	2/20/1990	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	3/7/1990	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	10/22/1990	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	6/5/1991	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	2/16/1992	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	3/28/1992	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	4/6/1992	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	4/7/1992	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	4/8/1992	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	4/9/1992	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	5/15/1992	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	11/4/1992	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	6/27/1993	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	6/28/1993	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	8/25/1993	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	1/6/1995	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	4/13/1995	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	4/15/1995	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	7/13/1995	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/23/1995	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	6/1/1997	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	6/21/1997	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	12/3/1997	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	11/11/1998	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	1/2/1999	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	7/3/1999	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	4/21/2000	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	6/19/2000	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	7/18/2000	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	7/19/2000	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	9/29/2000	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	5/13/2001	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	5/14/2001	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	5/15/2001	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	5/16/2001	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	7/7/2001	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	8/3/2001	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	10/21/2001	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	2/27/2003	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	3/1/2003	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	3/3/2003	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	4/1/2003	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	6/1/2003	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	6/4/2003	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	10/14/2003	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	6/20/2004	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	6/1/2005	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	6/2/2005	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	2/3/2006	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	6/21/2006	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/24/2006	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	6/25/2006	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	6/26/2006	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	8/21/2006	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	5/14/2007	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	5/15/2007	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	5/17/2007	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	6/2/2007	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	6/3/2007	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	12/10/2007	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	1/6/2008	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	1/18/2008	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	7/7/2008	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	7/20/2008	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	7/30/2008	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	9/7/2008	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	9/29/2008	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	9/30/2008	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	10/20/2008	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	7/20/2009	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	7/26/2009	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	7/12/2010	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	9/10/2010	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	9/17/2010	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	12/4/2011	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	12/5/2011	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	1/4/2012	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	5/30/2012	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	5/31/2012	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	6/3/2012	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	12/26/2012	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/16/2013	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	1/17/2014	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	2/9/2014	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	3/2/2014	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	6/29/2014	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	7/1/2014	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	11/17/2014	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	7/17/2015	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	12/12/2015	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	12/13/2015	12	12.00	1.04	12.44	5407	56.4759%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1548.963179
5592050	3/25/1990	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	4/6/1990	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	4/7/1990	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	4/8/1990	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	7/6/1990	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	6/6/1991	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	1/26/1992	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	2/18/1992	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	5/11/1992	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	5/16/1992	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	8/20/1993	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	8/23/1993	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	1/7/1995	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	11/27/1996	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	5/22/1997	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	5/24/1997	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	12/13/1997	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	7/9/1999	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	2/18/2000	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	6/1/2000	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	7/20/2000	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/8/2000	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	9/22/2000	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	5/17/2001	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	7/8/2001	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	10/22/2001	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	7/16/2002	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	3/7/2003	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	4/4/2003	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	4/7/2003	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	6/2/2003	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	6/5/2003	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	6/8/2003	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	6/24/2003	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	6/26/2003	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	6/23/2004	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	6/5/2005	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	6/14/2005	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	6/27/2006	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	5/18/2007	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	6/4/2007	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	7/3/2007	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	7/17/2007	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	8/17/2007	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	8/18/2007	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	1/2/2008	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	10/1/2008	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	10/2/2008	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	10/7/2008	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	10/21/2008	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	7/21/2009	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	7/22/2009	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/10/2009	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	10/16/2009	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	7/14/2010	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	8/1/2010	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	11/23/2010	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	12/2/2011	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	12/6/2011	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	1/5/2012	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	12/27/2012	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	7/17/2013	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	3/3/2014	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	3/4/2014	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	3/5/2014	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	3/6/2014	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	3/7/2014	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	3/8/2014	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	6/30/2014	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	7/18/2014	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	9/18/2014	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	7/18/2015	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	7/19/2015	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	7/20/2015	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	8/7/2015	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	11/17/2015	11	11.00	1.04	11.40	5498	57.4264%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1419.882914
5592050	3/17/1990	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	3/26/1990	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	10/8/1990	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	1/9/1992	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	2/17/1992	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	4/13/1992	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	4/14/1992	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/1/1992	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	1/8/1995	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	7/24/1995	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	7/30/1995	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	8/15/1995	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	1/16/1996	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	12/3/1996	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	5/23/1997	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	6/22/1997	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	7/1/1997	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	1/3/1999	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	1/12/1999	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	7/4/1999	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	8/26/2000	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	7/9/2001	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	7/24/2001	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	12/18/2002	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	2/28/2003	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	3/11/2003	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	4/2/2003	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	6/6/2003	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	6/27/2003	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	9/6/2003	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	10/10/2003	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	7/15/2004	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	6/28/2006	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	11/1/2006	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	11/5/2006	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	1/5/2008	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	1/7/2008	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	7/21/2008	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/22/2008	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	8/1/2008	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	10/22/2008	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	9/18/2010	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	9/19/2010	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	9/23/2010	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	9/24/2010	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	7/17/2011	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	1/6/2012	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	11/12/2012	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	7/18/2013	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	7/24/2013	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	8/1/2014	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	9/13/2014	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	11/18/2014	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	7/21/2015	10	10.00	1.04	10.37	5574	58.2202%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1290.802649
5592050	4/9/1990	9.9	9.90	1.04	10.26	5628	58.7842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1277.894623
5592050	10/14/1990	9.9	9.90	1.04	10.26	5628	58.7842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1277.894623
5592050	12/3/1991	9.9	9.90	1.04	10.26	5628	58.7842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1277.894623
5592050	2/19/1992	9.9	9.90	1.04	10.26	5628	58.7842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1277.894623
5592050	7/10/1994	9.9	9.90	1.04	10.26	5628	58.7842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1277.894623
5592050	5/21/2007	9.9	9.90	1.04	10.26	5628	58.7842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1277.894623
5592050	7/23/2009	9.9	9.90	1.04	10.26	5628	58.7842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1277.894623
5592050	10/8/2009	9.9	9.90	1.04	10.26	5628	58.7842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1277.894623
5592050	2/21/1990	9.8	9.80	1.04	10.16	5636	58.8678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1264.986596
5592050	6/11/1992	9.8	9.80	1.04	10.16	5636	58.8678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1264.986596
5592050	7/25/1998	9.8	9.80	1.04	10.16	5636	58.8678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1264.986596
5592050	5/20/2007	9.8	9.80	1.04	10.16	5636	58.8678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1264.986596
5592050	7/25/2007	9.8	9.80	1.04	10.16	5636	58.8678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1264.986596
5592050	7/26/2007	9.8	9.80	1.04	10.16	5636	58.8678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1264.986596
5592050	7/15/2010	9.8	9.80	1.04	10.16	5636	58.8678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1264.986596

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/27/2011	9.8	9.80	1.04	10.16	5636	58.8678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1264.986596
5592050	12/7/2011	9.8	9.80	1.04	10.16	5636	58.8678%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1264.986596
5592050	7/7/1990	9.7	9.70	1.04	10.06	5645	58.9618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1252.07857
5592050	6/7/1991	9.7	9.70	1.04	10.06	5645	58.9618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1252.07857
5592050	12/24/1991	9.7	9.70	1.04	10.06	5645	58.9618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1252.07857
5592050	7/14/1995	9.7	9.70	1.04	10.06	5645	58.9618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1252.07857
5592050	7/31/2008	9.7	9.70	1.04	10.06	5645	58.9618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1252.07857
5592050	8/2/2010	9.7	9.70	1.04	10.06	5645	58.9618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1252.07857
5592050	9/20/2010	9.7	9.70	1.04	10.06	5645	58.9618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1252.07857
5592050	1/7/2012	9.7	9.70	1.04	10.06	5645	58.9618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1252.07857
5592050	7/19/2013	9.7	9.70	1.04	10.06	5645	58.9618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1252.07857
5592050	3/24/1990	9.6	9.60	1.04	9.95	5654	59.0558%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1239.170543
5592050	6/8/1991	9.6	9.60	1.04	9.95	5654	59.0558%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1239.170543
5592050	1/28/1992	9.6	9.60	1.04	9.95	5654	59.0558%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1239.170543
5592050	5/17/1992	9.6	9.60	1.04	9.95	5654	59.0558%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1239.170543
5592050	8/23/1995	9.6	9.60	1.04	9.95	5654	59.0558%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1239.170543
5592050	12/24/1996	9.6	9.60	1.04	9.95	5654	59.0558%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1239.170543
5592050	10/3/2008	9.6	9.60	1.04	9.95	5654	59.0558%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1239.170543
5592050	3/27/1990	9.5	9.50	1.04	9.85	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1226.262517
5592050	12/4/1991	9.5	9.50	1.04	9.85	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1226.262517
5592050	1/27/1992	9.5	9.50	1.04	9.85	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1226.262517
5592050	7/25/1996	9.5	9.50	1.04	9.85	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1226.262517
5592050	3/21/2000	9.5	9.50	1.04	9.85	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1226.262517
5592050	7/17/2002	9.5	9.50	1.04	9.85	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1226.262517
5592050	4/8/2003	9.5	9.50	1.04	9.85	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1226.262517
5592050	6/11/2003	9.5	9.50	1.04	9.85	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1226.262517
5592050	6/6/2005	9.5	9.50	1.04	9.85	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1226.262517
5592050	2/4/2006	9.5	9.50	1.04	9.85	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1226.262517
5592050	2/17/2006	9.5	9.50	1.04	9.85	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1226.262517
5592050	8/12/2006	9.5	9.50	1.04	9.85	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1226.262517
5592050	6/5/2007	9.5	9.50	1.04	9.85	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1226.262517

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/27/2007	9.5	9.50	1.04	9.85	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1226.262517
5592050	1/3/2008	9.5	9.50	1.04	9.85	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1226.262517
5592050	1/19/2008	9.5	9.50	1.04	9.85	5661	59.1289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1226.262517
5592050	8/2/1992	9.4	9.40	1.04	9.74	5677	59.2960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1213.35449
5592050	8/21/1993	9.4	9.40	1.04	9.74	5677	59.2960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1213.35449
5592050	6/25/2003	9.4	9.40	1.04	9.74	5677	59.2960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1213.35449
5592050	7/20/2007	9.4	9.40	1.04	9.74	5677	59.2960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1213.35449
5592050	8/16/2007	9.4	9.40	1.04	9.74	5677	59.2960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1213.35449
5592050	12/3/2011	9.4	9.40	1.04	9.74	5677	59.2960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1213.35449
5592050	6/4/2012	9.4	9.40	1.04	9.74	5677	59.2960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1213.35449
5592050	11/19/2014	9.4	9.40	1.04	9.74	5677	59.2960%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1213.35449
5592050	5/18/1992	9.3	9.30	1.04	9.64	5685	59.3796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1200.446464
5592050	5/26/2007	9.3	9.30	1.04	9.64	5685	59.3796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1200.446464
5592050	12/28/2012	9.3	9.30	1.04	9.64	5685	59.3796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1200.446464
5592050	7/20/2013	9.3	9.30	1.04	9.64	5685	59.3796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1200.446464
5592050	11/21/2014	9.3	9.30	1.04	9.64	5685	59.3796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1200.446464
5592050	11/22/2015	9.3	9.30	1.04	9.64	5685	59.3796%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1200.446464
5592050	3/18/1990	9.2	9.20	1.04	9.54	5691	59.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1187.538437
5592050	10/23/1990	9.2	9.20	1.04	9.54	5691	59.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1187.538437
5592050	1/31/1992	9.2	9.20	1.04	9.54	5691	59.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1187.538437
5592050	7/21/2000	9.2	9.20	1.04	9.54	5691	59.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1187.538437
5592050	1/18/2006	9.2	9.20	1.04	9.54	5691	59.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1187.538437
5592050	6/29/2006	9.2	9.20	1.04	9.54	5691	59.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1187.538437
5592050	11/28/2011	9.2	9.20	1.04	9.54	5691	59.4422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1187.538437
5592050	6/16/1991	9.1	9.10	1.04	9.43	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1174.630411
5592050	6/22/1991	9.1	9.10	1.04	9.43	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1174.630411
5592050	12/23/1991	9.1	9.10	1.04	9.43	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1174.630411
5592050	5/23/1992	9.1	9.10	1.04	9.43	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1174.630411
5592050	7/16/1992	9.1	9.10	1.04	9.43	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1174.630411
5592050	7/12/2003	9.1	9.10	1.04	9.43	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1174.630411
5592050	2/19/2006	9.1	9.10	1.04	9.43	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1174.630411

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	8/18/2006	9.1	9.10	1.04	9.43	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1174.630411
5592050	7/23/2008	9.1	9.10	1.04	9.43	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1174.630411
5592050	12/8/2011	9.1	9.10	1.04	9.43	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1174.630411
5592050	9/5/2012	9.1	9.10	1.04	9.43	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1174.630411
5592050	7/21/2013	9.1	9.10	1.04	9.43	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1174.630411
5592050	2/10/2014	9.1	9.10	1.04	9.43	5698	59.5154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1174.630411
5592050	7/8/1990	9	9.00	1.04	9.33	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1161.722384
5592050	6/9/1991	9	9.00	1.04	9.33	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1161.722384
5592050	7/3/1992	9	9.00	1.04	9.33	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1161.722384
5592050	1/9/1995	9	9.00	1.04	9.33	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1161.722384
5592050	11/12/1995	9	9.00	1.04	9.33	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1161.722384
5592050	1/3/1996	9	9.00	1.04	9.33	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1161.722384
5592050	6/23/1997	9	9.00	1.04	9.33	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1161.722384
5592050	1/4/1999	9	9.00	1.04	9.33	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1161.722384
5592050	12/20/2002	9	9.00	1.04	9.33	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1161.722384
5592050	3/8/2003	9	9.00	1.04	9.33	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1161.722384
5592050	4/3/2003	9	9.00	1.04	9.33	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1161.722384
5592050	1/4/2008	9	9.00	1.04	9.33	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1161.722384
5592050	10/4/2008	9	9.00	1.04	9.33	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1161.722384
5592050	1/8/2012	9	9.00	1.04	9.33	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1161.722384
5592050	1/11/2013	9	9.00	1.04	9.33	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1161.722384
5592050	7/2/2014	9	9.00	1.04	9.33	5711	59.6511%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1161.722384
5592050	11/8/1996	8.9	8.90	1.04	9.23	5727	59.8183%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1148.814358
5592050	6/10/2003	8.9	8.90	1.04	9.23	5727	59.8183%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1148.814358
5592050	7/24/2009	8.9	8.90	1.04	9.23	5727	59.8183%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1148.814358
5592050	7/19/2014	8.9	8.90	1.04	9.23	5727	59.8183%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1148.814358
5592050	11/20/2014	8.9	8.90	1.04	9.23	5727	59.8183%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1148.814358
5592050	3/23/1990	8.8	8.80	1.04	9.12	5732	59.8705%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1135.906331
5592050	8/16/1995	8.8	8.80	1.04	9.12	5732	59.8705%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1135.906331
5592050	6/24/2004	8.8	8.80	1.04	9.12	5732	59.8705%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1135.906331
5592050	8/7/2008	8.8	8.80	1.04	9.12	5732	59.8705%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1135.906331

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	9/25/2010	8.8	8.80	1.04	9.12	5732	59.8705%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1135.906331
5592050	12/18/2012	8.8	8.80	1.04	9.12	5732	59.8705%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1135.906331
5592050	3/28/1990	8.7	8.70	1.04	9.02	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1122.998305
5592050	12/14/1997	8.7	8.70	1.04	9.02	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1122.998305
5592050	7/5/1999	8.7	8.70	1.04	9.02	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1122.998305
5592050	8/27/2000	8.7	8.70	1.04	9.02	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1122.998305
5592050	9/21/2000	8.7	8.70	1.04	9.02	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1122.998305
5592050	7/10/2001	8.7	8.70	1.04	9.02	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1122.998305
5592050	7/26/2001	8.7	8.70	1.04	9.02	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1122.998305
5592050	7/22/2006	8.7	8.70	1.04	9.02	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1122.998305
5592050	8/22/2006	8.7	8.70	1.04	9.02	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1122.998305
5592050	5/22/2007	8.7	8.70	1.04	9.02	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1122.998305
5592050	6/23/2007	8.7	8.70	1.04	9.02	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1122.998305
5592050	7/7/2007	8.7	8.70	1.04	9.02	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1122.998305
5592050	7/24/2007	8.7	8.70	1.04	9.02	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1122.998305
5592050	8/5/2007	8.7	8.70	1.04	9.02	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1122.998305
5592050	8/9/2007	8.7	8.70	1.04	9.02	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1122.998305
5592050	8/13/2007	8.7	8.70	1.04	9.02	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1122.998305
5592050	9/21/2010	8.7	8.70	1.04	9.02	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1122.998305
5592050	12/17/2012	8.7	8.70	1.04	9.02	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1122.998305
5592050	7/22/2015	8.7	8.70	1.04	9.02	5738	59.9332%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1122.998305
5592050	11/6/1990	8.6	8.60	1.04	8.91	5757	60.1316%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1110.090279
5592050	1/29/1992	8.6	8.60	1.04	8.91	5757	60.1316%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1110.090279
5592050	4/10/2003	8.6	8.60	1.04	8.91	5757	60.1316%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1110.090279
5592050	6/9/2003	8.6	8.60	1.04	8.91	5757	60.1316%	Non-volatile solids	47	mg/L	23.1	28.3	2258.625242	1110.090279
5592050	2/18/2006	8.6	8.60	1.04	8.91	5757	60.1316%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1110.090279
5592050	3/8/2006	8.6	8.60	1.04	8.91	5757	60.1316%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1110.090279
5592050	7/16/2010	8.6	8.60	1.04	8.91	5757	60.1316%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1110.090279
5592050	9/26/2010	8.6	8.60	1.04	8.91	5757	60.1316%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1110.090279
5592050	12/14/2011	8.6	8.60	1.04	8.91	5757	60.1316%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1110.090279
5592050	1/30/1992	8.5	8.50	1.04	8.81	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1097.182252

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/20/1992	8.5	8.50	1.04	8.81	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1097.182252
5592050	1/10/1995	8.5	8.50	1.04	8.81	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1097.182252
5592050	12/24/1995	8.5	8.50	1.04	8.81	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1097.182252
5592050	12/25/1996	8.5	8.50	1.04	8.81	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1097.182252
5592050	12/28/1996	8.5	8.50	1.04	8.81	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1097.182252
5592050	1/5/1999	8.5	8.50	1.04	8.81	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1097.182252
5592050	8/9/2000	8.5	8.50	1.04	8.81	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1097.182252
5592050	1/20/2008	8.5	8.50	1.04	8.81	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1097.182252
5592050	8/3/2010	8.5	8.50	1.04	8.81	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1097.182252
5592050	1/9/2012	8.5	8.50	1.04	8.81	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1097.182252
5592050	11/14/2012	8.5	8.50	1.04	8.81	5766	60.2256%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1097.182252
5592050	3/22/1990	8.4	8.40	1.04	8.71	5778	60.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1084.274226
5592050	11/22/1991	8.4	8.40	1.04	8.71	5778	60.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1084.274226
5592050	8/26/1993	8.4	8.40	1.04	8.71	5778	60.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1084.274226
5592050	12/6/1996	8.4	8.40	1.04	8.71	5778	60.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1084.274226
5592050	12/4/1997	8.4	8.40	1.04	8.71	5778	60.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1084.274226
5592050	1/19/2006	8.4	8.40	1.04	8.71	5778	60.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1084.274226
5592050	1/21/2006	8.4	8.40	1.04	8.71	5778	60.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1084.274226
5592050	8/10/2007	8.4	8.40	1.04	8.71	5778	60.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1084.274226
5592050	8/6/2008	8.4	8.40	1.04	8.71	5778	60.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1084.274226
5592050	12/9/2011	8.4	8.40	1.04	8.71	5778	60.3510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1084.274226
5592050	2/2/1990	8.3	8.30	1.04	8.60	5788	60.4554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1071.366199
5592050	10/17/1990	8.3	8.30	1.04	8.60	5788	60.4554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1071.366199
5592050	6/10/1991	8.3	8.30	1.04	8.60	5788	60.4554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1071.366199
5592050	8/22/1993	8.3	8.30	1.04	8.60	5788	60.4554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1071.366199
5592050	9/30/2000	8.3	8.30	1.04	8.60	5788	60.4554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1071.366199
5592050	6/15/2005	8.3	8.30	1.04	8.60	5788	60.4554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1071.366199
5592050	6/30/2006	8.3	8.30	1.04	8.60	5788	60.4554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1071.366199
5592050	7/27/2009	8.3	8.30	1.04	8.60	5788	60.4554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1071.366199
5592050	6/5/2012	8.3	8.30	1.04	8.60	5788	60.4554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1071.366199
5592050	10/24/2012	8.3	8.30	1.04	8.60	5788	60.4554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1071.366199

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	3/19/1990	8.2	8.20	1.04	8.50	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1058.458173
5592050	2/1/1992	8.2	8.20	1.04	8.50	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1058.458173
5592050	5/19/1992	8.2	8.20	1.04	8.50	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1058.458173
5592050	8/17/1995	8.2	8.20	1.04	8.50	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1058.458173
5592050	12/7/1996	8.2	8.20	1.04	8.50	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1058.458173
5592050	7/30/1998	8.2	8.20	1.04	8.50	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1058.458173
5592050	4/20/2003	8.2	8.20	1.04	8.50	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1058.458173
5592050	6/7/2005	8.2	8.20	1.04	8.50	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1058.458173
5592050	8/15/2006	8.2	8.20	1.04	8.50	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1058.458173
5592050	9/8/2008	8.2	8.20	1.04	8.50	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1058.458173
5592050	9/22/2010	8.2	8.20	1.04	8.50	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1058.458173
5592050	1/10/2012	8.2	8.20	1.04	8.50	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1058.458173
5592050	12/19/2012	8.2	8.20	1.04	8.50	5798	60.5598%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1058.458173
5592050	6/11/1991	8.1	8.10	1.04	8.40	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1045.550146
5592050	12/13/1991	8.1	8.10	1.04	8.40	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1045.550146
5592050	11/2/1995	8.1	8.10	1.04	8.40	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1045.550146
5592050	7/26/1998	8.1	8.10	1.04	8.40	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1045.550146
5592050	7/18/2002	8.1	8.10	1.04	8.40	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1045.550146
5592050	1/20/2006	8.1	8.10	1.04	8.40	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1045.550146
5592050	2/22/2006	8.1	8.10	1.04	8.40	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1045.550146
5592050	8/17/2006	8.1	8.10	1.04	8.40	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1045.550146
5592050	5/23/2007	8.1	8.10	1.04	8.40	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1045.550146
5592050	7/25/2008	8.1	8.10	1.04	8.40	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1045.550146
5592050	8/20/2009	8.1	8.10	1.04	8.40	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1045.550146
5592050	9/27/2010	8.1	8.10	1.04	8.40	5811	60.6956%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1045.550146
5592050	7/9/1990	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212
5592050	7/24/1990	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212
5592050	6/12/1991	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212
5592050	1/10/1992	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212
5592050	11/5/1992	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212
5592050	6/24/1997	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/2/1997	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212
5592050	7/6/1999	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212
5592050	9/27/2003	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212
5592050	6/9/2005	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212
5592050	6/11/2005	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212
5592050	1/22/2006	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212
5592050	2/20/2006	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212
5592050	2/21/2006	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212
5592050	11/2/2006	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212
5592050	11/4/2006	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212
5592050	1/30/2008	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212
5592050	10/5/2008	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212
5592050	7/18/2011	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212
5592050	12/10/2012	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212
5592050	12/29/2012	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212
5592050	1/10/2014	8	8.00	1.04	8.29	5823	60.8210%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1032.64212
5592050	2/5/1990	7.9	7.90	1.04	8.19	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1019.734093
5592050	10/24/1990	7.9	7.90	1.04	8.19	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1019.734093
5592050	6/15/1991	7.9	7.90	1.04	8.19	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1019.734093
5592050	7/11/1994	7.9	7.90	1.04	8.19	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1019.734093
5592050	11/8/1994	7.9	7.90	1.04	8.19	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1019.734093
5592050	6/2/2000	7.9	7.90	1.04	8.19	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1019.734093
5592050	8/28/2000	7.9	7.90	1.04	8.19	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1019.734093
5592050	6/12/2005	7.9	7.90	1.04	8.19	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1019.734093
5592050	6/13/2005	7.9	7.90	1.04	8.19	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1019.734093
5592050	1/23/2006	7.9	7.90	1.04	8.19	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1019.734093
5592050	1/24/2006	7.9	7.90	1.04	8.19	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1019.734093
5592050	8/8/2007	7.9	7.90	1.04	8.19	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1019.734093
5592050	8/12/2007	7.9	7.90	1.04	8.19	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1019.734093
5592050	12/10/2011	7.9	7.90	1.04	8.19	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1019.734093
5592050	1/11/2012	7.9	7.90	1.04	8.19	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1019.734093

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	8/27/2012	7.9	7.90	1.04	8.19	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1019.734093
5592050	9/8/2012	7.9	7.90	1.04	8.19	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1019.734093
5592050	12/16/2012	7.9	7.90	1.04	8.19	5845	61.0508%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1019.734093
5592050	1/14/1992	7.8	7.80	1.04	8.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1006.826067
5592050	2/21/1992	7.8	7.80	1.04	8.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1006.826067
5592050	2/22/1992	7.8	7.80	1.04	8.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1006.826067
5592050	5/24/1992	7.8	7.80	1.04	8.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1006.826067
5592050	12/18/1995	7.8	7.80	1.04	8.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1006.826067
5592050	1/6/1999	7.8	7.80	1.04	8.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1006.826067
5592050	8/4/2000	7.8	7.80	1.04	8.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1006.826067
5592050	6/28/2003	7.8	7.80	1.04	8.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1006.826067
5592050	7/16/2004	7.8	7.80	1.04	8.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1006.826067
5592050	6/10/2005	7.8	7.80	1.04	8.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1006.826067
5592050	2/5/2006	7.8	7.80	1.04	8.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1006.826067
5592050	8/16/2006	7.8	7.80	1.04	8.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1006.826067
5592050	6/6/2007	7.8	7.80	1.04	8.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1006.826067
5592050	8/11/2007	7.8	7.80	1.04	8.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1006.826067
5592050	7/19/2010	7.8	7.80	1.04	8.09	5863	61.2388%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	1006.826067
5592050	3/21/1990	7.7	7.70	1.04	7.98	5878	61.3954%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	993.9180401
5592050	2/23/1992	7.7	7.70	1.04	7.98	5878	61.3954%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	993.9180401
5592050	7/21/1992	7.7	7.70	1.04	7.98	5878	61.3954%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	993.9180401
5592050	7/31/1998	7.7	7.70	1.04	7.98	5878	61.3954%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	993.9180401
5592050	6/8/2005	7.7	7.70	1.04	7.98	5878	61.3954%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	993.9180401
5592050	7/1/2006	7.7	7.70	1.04	7.98	5878	61.3954%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	993.9180401
5592050	8/14/2006	7.7	7.70	1.04	7.98	5878	61.3954%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	993.9180401
5592050	8/4/2010	7.7	7.70	1.04	7.98	5878	61.3954%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	993.9180401
5592050	9/28/2010	7.7	7.70	1.04	7.98	5878	61.3954%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	993.9180401
5592050	3/20/1990	7.6	7.60	1.04	7.88	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	981.0100136
5592050	7/15/1990	7.6	7.60	1.04	7.88	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	981.0100136
5592050	11/5/1990	7.6	7.60	1.04	7.88	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	981.0100136
5592050	5/20/1992	7.6	7.60	1.04	7.88	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	981.0100136

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/26/1996	7.6	7.60	1.04	7.88	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	981.0100136
5592050	12/29/1996	7.6	7.60	1.04	7.88	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	981.0100136
5592050	1/5/1997	7.6	7.60	1.04	7.88	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	981.0100136
5592050	7/27/1998	7.6	7.60	1.04	7.88	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	981.0100136
5592050	7/7/1999	7.6	7.60	1.04	7.88	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	981.0100136
5592050	5/24/2007	7.6	7.60	1.04	7.88	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	981.0100136
5592050	5/25/2007	7.6	7.60	1.04	7.88	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	981.0100136
5592050	8/7/2007	7.6	7.60	1.04	7.88	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	981.0100136
5592050	8/15/2007	7.6	7.60	1.04	7.88	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	981.0100136
5592050	12/11/2011	7.6	7.60	1.04	7.88	5887	61.4895%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	981.0100136
5592050	7/12/1990	7.5	7.50	1.04	7.77	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	968.1019871
5592050	12/25/1991	7.5	7.50	1.04	7.77	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	968.1019871
5592050	5/21/1992	7.5	7.50	1.04	7.77	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	968.1019871
5592050	7/8/1992	7.5	7.50	1.04	7.77	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	968.1019871
5592050	7/15/1995	7.5	7.50	1.04	7.77	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	968.1019871
5592050	1/4/1996	7.5	7.50	1.04	7.77	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	968.1019871
5592050	1/15/1996	7.5	7.50	1.04	7.77	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	968.1019871
5592050	7/22/2000	7.5	7.50	1.04	7.77	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	968.1019871
5592050	1/17/2006	7.5	7.50	1.04	7.77	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	968.1019871
5592050	7/23/2007	7.5	7.50	1.04	7.77	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	968.1019871
5592050	8/6/2007	7.5	7.50	1.04	7.77	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	968.1019871
5592050	7/17/2010	7.5	7.50	1.04	7.77	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	968.1019871
5592050	1/12/2012	7.5	7.50	1.04	7.77	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	968.1019871
5592050	12/23/2013	7.5	7.50	1.04	7.77	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	968.1019871
5592050	8/28/2014	7.5	7.50	1.04	7.77	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	968.1019871
5592050	7/23/2015	7.5	7.50	1.04	7.77	5901	61.6357%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	968.1019871
5592050	2/4/1990	7.4	7.40	1.04	7.67	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	955.1939606
5592050	5/22/1992	7.4	7.40	1.04	7.67	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	955.1939606
5592050	6/12/1992	7.4	7.40	1.04	7.67	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	955.1939606
5592050	6/14/1992	7.4	7.40	1.04	7.67	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	955.1939606
5592050	7/31/1995	7.4	7.40	1.04	7.67	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	955.1939606

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/5/1996	7.4	7.40	1.04	7.67	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	955.1939606
5592050	1/7/1999	7.4	7.40	1.04	7.67	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	955.1939606
5592050	9/7/2003	7.4	7.40	1.04	7.67	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	955.1939606
5592050	7/6/2005	7.4	7.40	1.04	7.67	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	955.1939606
5592050	1/25/2006	7.4	7.40	1.04	7.67	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	955.1939606
5592050	2/23/2006	7.4	7.40	1.04	7.67	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	955.1939606
5592050	8/13/2006	7.4	7.40	1.04	7.67	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	955.1939606
5592050	10/6/2008	7.4	7.40	1.04	7.67	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	955.1939606
5592050	9/19/2014	7.4	7.40	1.04	7.67	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	955.1939606
5592050	11/25/2015	7.4	7.40	1.04	7.67	5917	61.8028%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	955.1939606
5592050	2/24/1992	7.3	7.30	1.04	7.57	5932	61.9595%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	942.2859341
5592050	7/11/2001	7.3	7.30	1.04	7.57	5932	61.9595%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	942.2859341
5592050	6/25/2004	7.3	7.30	1.04	7.57	5932	61.9595%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	942.2859341
5592050	6/25/2005	7.3	7.30	1.04	7.57	5932	61.9595%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	942.2859341
5592050	8/14/2007	7.3	7.30	1.04	7.57	5932	61.9595%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	942.2859341
5592050	1/21/2008	7.3	7.30	1.04	7.57	5932	61.9595%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	942.2859341
5592050	10/27/2010	7.3	7.30	1.04	7.57	5932	61.9595%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	942.2859341
5592050	12/12/2011	7.3	7.30	1.04	7.57	5932	61.9595%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	942.2859341
5592050	12/13/2011	7.3	7.30	1.04	7.57	5932	61.9595%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	942.2859341
5592050	7/25/2013	7.3	7.30	1.04	7.57	5932	61.9595%	Non-volatile solids	26	mg/L	23.1	28.3	1060.581571	942.2859341
5592050	7/13/1990	7.2	7.20	1.04	7.46	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	929.3779076
5592050	6/13/1991	7.2	7.20	1.04	7.46	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	929.3779076
5592050	12/1/1991	7.2	7.20	1.04	7.46	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	929.3779076
5592050	6/16/1992	7.2	7.20	1.04	7.46	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	929.3779076
5592050	7/21/1994	7.2	7.20	1.04	7.46	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	929.3779076
5592050	11/29/1996	7.2	7.20	1.04	7.46	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	929.3779076
5592050	8/12/1998	7.2	7.20	1.04	7.46	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	929.3779076
5592050	7/28/2007	7.2	7.20	1.04	7.46	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	929.3779076
5592050	7/24/2008	7.2	7.20	1.04	7.46	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	929.3779076
5592050	9/29/2010	7.2	7.20	1.04	7.46	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	929.3779076
5592050	1/13/2012	7.2	7.20	1.04	7.46	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	929.3779076

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	6/6/2012	7.2	7.20	1.04	7.46	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	929.3779076
5592050	2/11/2014	7.2	7.20	1.04	7.46	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	929.3779076
5592050	7/20/2014	7.2	7.20	1.04	7.46	5942	62.0639%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	929.3779076
5592050	1/8/1992	7.1	7.10	1.04	7.36	5956	62.2102%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	916.4698811
5592050	1/22/1992	7.1	7.10	1.04	7.36	5956	62.2102%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	916.4698811
5592050	8/3/1992	7.1	7.10	1.04	7.36	5956	62.2102%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	916.4698811
5592050	12/4/1996	7.1	7.10	1.04	7.36	5956	62.2102%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	916.4698811
5592050	11/3/1998	7.1	7.10	1.04	7.36	5956	62.2102%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	916.4698811
5592050	7/14/2006	7.1	7.10	1.04	7.36	5956	62.2102%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	916.4698811
5592050	10/23/2012	7.1	7.10	1.04	7.36	5956	62.2102%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	916.4698811
5592050	11/26/2015	7.1	7.10	1.04	7.36	5956	62.2102%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	916.4698811
5592050	1/11/1992	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	2/2/1992	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	5/27/1992	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	7/4/1992	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	7/6/1992	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	8/24/1995	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	12/25/1995	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	6/25/1997	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	7/3/1997	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	7/29/1998	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	1/8/1999	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	1/11/1999	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	1/3/2003	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	4/9/2003	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	4/11/2003	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	4/18/2003	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	10/15/2003	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	22	mg/L	23.1	28.3	860.5350996	903.5618546
5592050	6/16/2005	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	2/6/2006	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	11/3/2006	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	8/4/2007	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	1/31/2008	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	7/28/2009	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	7/18/2010	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	7/26/2011	7	7.00	1.04	7.26	5964	62.2937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	903.5618546
5592050	7/11/1990	6.9	6.90	1.04	7.15	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	890.6538281
5592050	11/7/1990	6.9	6.90	1.04	7.15	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	890.6538281
5592050	1/13/1992	6.9	6.90	1.04	7.15	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	890.6538281
5592050	2/25/1992	6.9	6.90	1.04	7.15	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	890.6538281
5592050	8/27/1993	6.9	6.90	1.04	7.15	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	890.6538281
5592050	9/1/1993	6.9	6.90	1.04	7.15	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	890.6538281
5592050	7/28/1998	6.9	6.90	1.04	7.15	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	890.6538281
5592050	6/6/2000	6.9	6.90	1.04	7.15	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	890.6538281
5592050	8/23/2000	6.9	6.90	1.04	7.15	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	890.6538281
5592050	6/7/2007	6.9	6.90	1.04	7.15	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	890.6538281
5592050	10/28/2010	6.9	6.90	1.04	7.15	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	890.6538281
5592050	12/30/2012	6.9	6.90	1.04	7.15	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	890.6538281
5592050	7/3/2014	6.9	6.90	1.04	7.15	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	890.6538281
5592050	11/23/2015	6.9	6.90	1.04	7.15	5989	62.5548%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	890.6538281
5592050	7/10/1990	6.8	6.80	1.04	7.05	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	877.7458016
5592050	7/16/1990	6.8	6.80	1.04	7.05	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	877.7458016
5592050	10/25/1990	6.8	6.80	1.04	7.05	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	877.7458016
5592050	2/27/1992	6.8	6.80	1.04	7.05	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	877.7458016
5592050	11/28/1996	6.8	6.80	1.04	7.05	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	877.7458016
5592050	12/26/1996	6.8	6.80	1.04	7.05	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	877.7458016
5592050	12/27/1996	6.8	6.80	1.04	7.05	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	877.7458016
5592050	3/9/2003	6.8	6.80	1.04	7.05	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	877.7458016
5592050	7/2/2006	6.8	6.80	1.04	7.05	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	877.7458016
5592050	6/8/2007	6.8	6.80	1.04	7.05	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	877.7458016
5592050	7/26/2008	6.8	6.80	1.04	7.05	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	877.7458016
5592050	10/17/2009	6.8	6.80	1.04	7.05	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	877.7458016

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	1/16/2012	6.8	6.80	1.04	7.05	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	877.7458016
5592050	12/11/2012	6.8	6.80	1.04	7.05	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	877.7458016
5592050	7/24/2015	6.8	6.80	1.04	7.05	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	877.7458016
5592050	11/19/2015	6.8	6.80	1.04	7.05	6003	62.7011%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	877.7458016
5592050	10/15/1990	6.7	6.70	1.04	6.95	6019	62.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	864.8377751
5592050	2/26/1992	6.7	6.70	1.04	6.95	6019	62.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	864.8377751
5592050	5/26/1992	6.7	6.70	1.04	6.95	6019	62.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	864.8377751
5592050	9/20/2000	6.7	6.70	1.04	6.95	6019	62.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	864.8377751
5592050	7/8/2007	6.7	6.70	1.04	6.95	6019	62.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	864.8377751
5592050	8/3/2007	6.7	6.70	1.04	6.95	6019	62.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	864.8377751
5592050	10/26/2010	6.7	6.70	1.04	6.95	6019	62.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	864.8377751
5592050	1/14/2012	6.7	6.70	1.04	6.95	6019	62.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	864.8377751
5592050	9/21/2014	6.7	6.70	1.04	6.95	6019	62.8682%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	864.8377751
5592050	7/14/1990	6.6	6.60	1.04	6.84	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	851.9297486
5592050	1/12/1992	6.6	6.60	1.04	6.84	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	851.9297486
5592050	2/3/1992	6.6	6.60	1.04	6.84	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	851.9297486
5592050	8/31/1993	6.6	6.60	1.04	6.84	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	851.9297486
5592050	7/16/1995	6.6	6.60	1.04	6.84	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	851.9297486
5592050	12/30/2005	6.6	6.60	1.04	6.84	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	851.9297486
5592050	8/23/2006	6.6	6.60	1.04	6.84	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	851.9297486
5592050	1/22/2008	6.6	6.60	1.04	6.84	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	851.9297486
5592050	9/9/2008	6.6	6.60	1.04	6.84	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	851.9297486
5592050	8/6/2009	6.6	6.60	1.04	6.84	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	851.9297486
5592050	8/5/2010	6.6	6.60	1.04	6.84	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	851.9297486
5592050	11/7/2010	6.6	6.60	1.04	6.84	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	851.9297486
5592050	11/8/2010	6.6	6.60	1.04	6.84	6028	62.9622%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	851.9297486
5592050	12/26/1991	6.5	6.50	1.04	6.74	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	839.0217221
5592050	1/15/1992	6.5	6.50	1.04	6.74	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	839.0217221
5592050	5/25/1992	6.5	6.50	1.04	6.74	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	839.0217221
5592050	7/12/1994	6.5	6.50	1.04	6.74	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	839.0217221
5592050	1/5/1996	6.5	6.50	1.04	6.74	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	839.0217221

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	1/14/1996	6.5	6.50	1.04	6.74	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	839.0217221
5592050	7/27/1996	6.5	6.50	1.04	6.74	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	839.0217221
5592050	12/8/1996	6.5	6.50	1.04	6.74	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	839.0217221
5592050	1/9/1999	6.5	6.50	1.04	6.74	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	839.0217221
5592050	7/8/1999	6.5	6.50	1.04	6.74	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	839.0217221
5592050	3/27/2000	6.5	6.50	1.04	6.74	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	839.0217221
5592050	7/19/2002	6.5	6.50	1.04	6.74	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	839.0217221
5592050	6/26/2004	6.5	6.50	1.04	6.74	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	839.0217221
5592050	1/26/2006	6.5	6.50	1.04	6.74	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	839.0217221
5592050	1/28/2006	6.5	6.50	1.04	6.74	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	839.0217221
5592050	7/21/2007	6.5	6.50	1.04	6.74	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	839.0217221
5592050	9/30/2010	6.5	6.50	1.04	6.74	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	839.0217221
5592050	11/9/2010	6.5	6.50	1.04	6.74	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	839.0217221
5592050	1/15/2012	6.5	6.50	1.04	6.74	6041	63.0980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	839.0217221
5592050	2/19/2000	6.4	6.40	1.04	6.63	6060	63.2964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	826.1136956
5592050	2/7/2006	6.4	6.40	1.04	6.63	6060	63.2964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	826.1136956
5592050	10/26/2006	6.4	6.40	1.04	6.63	6060	63.2964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	826.1136956
5592050	6/9/2007	6.4	6.40	1.04	6.63	6060	63.2964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	826.1136956
5592050	7/22/2007	6.4	6.40	1.04	6.63	6060	63.2964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	826.1136956
5592050	1/29/2008	6.4	6.40	1.04	6.63	6060	63.2964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	826.1136956
5592050	11/5/2010	6.4	6.40	1.04	6.63	6060	63.2964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	826.1136956
5592050	11/10/2010	6.4	6.40	1.04	6.63	6060	63.2964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	826.1136956
5592050	11/20/2010	6.4	6.40	1.04	6.63	6060	63.2964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	826.1136956
5592050	9/14/2014	6.4	6.40	1.04	6.63	6060	63.2964%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	826.1136956
5592050	2/6/1990	6.3	6.30	1.04	6.53	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	813.2056691
5592050	6/17/1991	6.3	6.30	1.04	6.53	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	813.2056691
5592050	2/4/1992	6.3	6.30	1.04	6.53	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	813.2056691
5592050	2/28/1992	6.3	6.30	1.04	6.53	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	813.2056691
5592050	7/23/2002	6.3	6.30	1.04	6.53	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	813.2056691
5592050	6/29/2003	6.3	6.30	1.04	6.53	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	813.2056691
5592050	2/24/2006	6.3	6.30	1.04	6.53	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	813.2056691

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	3/2/2006	6.3	6.30	1.04	6.53	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	813.2056691
5592050	7/11/2007	6.3	6.30	1.04	6.53	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	813.2056691
5592050	2/1/2008	6.3	6.30	1.04	6.53	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	813.2056691
5592050	7/29/2009	6.3	6.30	1.04	6.53	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	813.2056691
5592050	8/14/2010	6.3	6.30	1.04	6.53	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	813.2056691
5592050	11/6/2010	6.3	6.30	1.04	6.53	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	813.2056691
5592050	11/11/2010	6.3	6.30	1.04	6.53	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	813.2056691
5592050	11/12/2010	6.3	6.30	1.04	6.53	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	813.2056691
5592050	11/13/2010	6.3	6.30	1.04	6.53	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	813.2056691
5592050	11/22/2010	6.3	6.30	1.04	6.53	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	813.2056691
5592050	11/24/2011	6.3	6.30	1.04	6.53	6070	63.4009%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	813.2056691
5592050	3/7/1992	6.2	6.20	1.04	6.43	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	800.2976426
5592050	6/13/1992	6.2	6.20	1.04	6.43	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	800.2976426
5592050	7/17/1995	6.2	6.20	1.04	6.43	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	800.2976426
5592050	11/13/1995	6.2	6.20	1.04	6.43	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	800.2976426
5592050	12/15/1997	6.2	6.20	1.04	6.43	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	800.2976426
5592050	1/10/1999	6.2	6.20	1.04	6.43	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	800.2976426
5592050	1/27/2006	6.2	6.20	1.04	6.43	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	800.2976426
5592050	2/8/2006	6.2	6.20	1.04	6.43	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	800.2976426
5592050	2/25/2006	6.2	6.20	1.04	6.43	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	800.2976426
5592050	3/1/2006	6.2	6.20	1.04	6.43	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	800.2976426
5592050	7/3/2006	6.2	6.20	1.04	6.43	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	800.2976426
5592050	11/29/2007	6.2	6.20	1.04	6.43	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	800.2976426
5592050	10/29/2010	6.2	6.20	1.04	6.43	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	800.2976426
5592050	11/2/2010	6.2	6.20	1.04	6.43	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	800.2976426
5592050	11/15/2010	6.2	6.20	1.04	6.43	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	800.2976426
5592050	6/7/2012	6.2	6.20	1.04	6.43	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	800.2976426
5592050	7/31/2013	6.2	6.20	1.04	6.43	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	800.2976426
5592050	7/25/2015	6.2	6.20	1.04	6.43	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	800.2976426
5592050	11/21/2015	6.2	6.20	1.04	6.43	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	800.2976426
5592050	11/24/2015	6.2	6.20	1.04	6.43	6088	63.5889%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	800.2976426

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	3/6/1992	6.1	6.10	1.04	6.32	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	787.3896161
5592050	10/19/1994	6.1	6.10	1.04	6.32	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	787.3896161
5592050	8/18/1995	6.1	6.10	1.04	6.32	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	787.3896161
5592050	6/3/2000	6.1	6.10	1.04	6.32	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	787.3896161
5592050	8/29/2000	6.1	6.10	1.04	6.32	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	787.3896161
5592050	10/1/2000	6.1	6.10	1.04	6.32	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	787.3896161
5592050	7/12/2001	6.1	6.10	1.04	6.32	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	787.3896161
5592050	8/2/2007	6.1	6.10	1.04	6.32	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	787.3896161
5592050	11/3/2010	6.1	6.10	1.04	6.32	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	787.3896161
5592050	11/14/2010	6.1	6.10	1.04	6.32	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	787.3896161
5592050	11/17/2010	6.1	6.10	1.04	6.32	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	787.3896161
5592050	11/18/2010	6.1	6.10	1.04	6.32	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	787.3896161
5592050	7/26/2013	6.1	6.10	1.04	6.32	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	787.3896161
5592050	1/31/2014	6.1	6.10	1.04	6.32	6108	63.7978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	787.3896161
5592050	10/26/1990	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	8/28/1993	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	12/26/1995	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	1/6/1996	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	1/13/1996	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	12/30/1996	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	1/18/1997	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	6/26/1997	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	11/13/1998	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	7/10/1999	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	7/23/2000	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	7/28/2003	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	10/11/2003	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	2/12/2006	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	7/16/2007	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	1/23/2008	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	2/3/2008	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	8/6/2010	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	11/16/2010	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	11/19/2010	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	7/19/2011	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	7/4/2014	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	7/26/2015	6	6.00	1.04	6.22	6122	63.9440%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	774.4815897
5592050	2/5/1992	5.9	5.90	1.04	6.12	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	761.5735632
5592050	2/29/1992	5.9	5.90	1.04	6.12	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	761.5735632
5592050	6/15/1992	5.9	5.90	1.04	6.12	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	761.5735632
5592050	11/6/1992	5.9	5.90	1.04	6.12	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	761.5735632
5592050	12/9/1996	5.9	5.90	1.04	6.12	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	761.5735632
5592050	12/22/1998	5.9	5.90	1.04	6.12	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	761.5735632
5592050	8/10/2000	5.9	5.90	1.04	6.12	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	761.5735632
5592050	7/17/2004	5.9	5.90	1.04	6.12	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	761.5735632
5592050	1/14/2006	5.9	5.90	1.04	6.12	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	761.5735632
5592050	2/16/2006	5.9	5.90	1.04	6.12	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	761.5735632
5592050	2/28/2006	5.9	5.90	1.04	6.12	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	761.5735632
5592050	8/24/2006	5.9	5.90	1.04	6.12	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	761.5735632
5592050	9/6/2006	5.9	5.90	1.04	6.12	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	761.5735632
5592050	11/1/2010	5.9	5.90	1.04	6.12	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	761.5735632
5592050	1/18/2014	5.9	5.90	1.04	6.12	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	761.5735632
5592050	8/2/2014	5.9	5.90	1.04	6.12	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	761.5735632
5592050	7/27/2015	5.9	5.90	1.04	6.12	6145	64.1842%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	761.5735632
5592050	6/14/1991	5.8	5.80	1.04	6.01	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	748.6655367
5592050	12/27/1991	5.8	5.80	1.04	6.01	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	748.6655367
5592050	5/28/1992	5.8	5.80	1.04	6.01	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	748.6655367
5592050	1/7/1996	5.8	5.80	1.04	6.01	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	748.6655367
5592050	1/12/1996	5.8	5.80	1.04	6.01	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	748.6655367
5592050	7/4/1997	5.8	5.80	1.04	6.01	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	748.6655367
5592050	8/1/1998	5.8	5.80	1.04	6.01	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	748.6655367
5592050	2/10/2006	5.8	5.80	1.04	6.01	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	748.6655367

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/11/2006	5.8	5.80	1.04	6.01	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	748.6655367
5592050	2/26/2006	5.8	5.80	1.04	6.01	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	748.6655367
5592050	7/4/2006	5.8	5.80	1.04	6.01	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	748.6655367
5592050	9/5/2006	5.8	5.80	1.04	6.01	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	748.6655367
5592050	2/2/2008	5.8	5.80	1.04	6.01	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	748.6655367
5592050	7/30/2009	5.8	5.80	1.04	6.01	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	748.6655367
5592050	10/1/2010	5.8	5.80	1.04	6.01	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	748.6655367
5592050	10/25/2010	5.8	5.80	1.04	6.01	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	748.6655367
5592050	10/30/2010	5.8	5.80	1.04	6.01	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	748.6655367
5592050	11/4/2010	5.8	5.80	1.04	6.01	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	748.6655367
5592050	12/31/2012	5.8	5.80	1.04	6.01	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	748.6655367
5592050	7/21/2014	5.8	5.80	1.04	6.01	6162	64.3618%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	748.6655367
5592050	2/7/1990	5.7	5.70	1.04	5.91	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	735.7575102
5592050	10/16/1990	5.7	5.70	1.04	5.91	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	735.7575102
5592050	2/6/1992	5.7	5.70	1.04	5.91	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	735.7575102
5592050	3/5/1992	5.7	5.70	1.04	5.91	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	735.7575102
5592050	3/8/1992	5.7	5.70	1.04	5.91	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	735.7575102
5592050	1/6/1997	5.7	5.70	1.04	5.91	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	735.7575102
5592050	9/8/2003	5.7	5.70	1.04	5.91	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	735.7575102
5592050	1/16/2006	5.7	5.70	1.04	5.91	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	735.7575102
5592050	7/23/2006	5.7	5.70	1.04	5.91	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	735.7575102
5592050	9/7/2006	5.7	5.70	1.04	5.91	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	735.7575102
5592050	7/27/2008	5.7	5.70	1.04	5.91	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	735.7575102
5592050	10/2/2010	5.7	5.70	1.04	5.91	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	735.7575102
5592050	10/3/2010	5.7	5.70	1.04	5.91	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	735.7575102
5592050	10/23/2010	5.7	5.70	1.04	5.91	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	735.7575102
5592050	10/24/2010	5.7	5.70	1.04	5.91	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	735.7575102
5592050	11/21/2010	5.7	5.70	1.04	5.91	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	735.7575102
5592050	12/9/2012	5.7	5.70	1.04	5.91	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	735.7575102
5592050	2/12/2014	5.7	5.70	1.04	5.91	6182	64.5707%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	735.7575102
5592050	12/14/1991	5.6	5.60	1.04	5.80	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	722.8494837

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/1/1994	5.6	5.60	1.04	5.80	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	722.8494837
5592050	8/25/1995	5.6	5.60	1.04	5.80	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	722.8494837
5592050	1/8/1996	5.6	5.60	1.04	5.80	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	722.8494837
5592050	1/11/1996	5.6	5.60	1.04	5.80	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	722.8494837
5592050	7/28/1996	5.6	5.60	1.04	5.80	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	722.8494837
5592050	3/22/2000	5.6	5.60	1.04	5.80	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	722.8494837
5592050	6/27/2004	5.6	5.60	1.04	5.80	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	722.8494837
5592050	6/17/2005	5.6	5.60	1.04	5.80	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	722.8494837
5592050	1/15/2006	5.6	5.60	1.04	5.80	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	722.8494837
5592050	2/9/2006	5.6	5.60	1.04	5.80	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	722.8494837
5592050	3/3/2006	5.6	5.60	1.04	5.80	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	722.8494837
5592050	7/9/2007	5.6	5.60	1.04	5.80	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	722.8494837
5592050	7/10/2007	5.6	5.60	1.04	5.80	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	722.8494837
5592050	7/15/2007	5.6	5.60	1.04	5.80	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	722.8494837
5592050	1/24/2008	5.6	5.60	1.04	5.80	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	722.8494837
5592050	10/11/2010	5.6	5.60	1.04	5.80	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	722.8494837
5592050	6/12/2012	5.6	5.60	1.04	5.80	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	722.8494837
5592050	10/26/2012	5.6	5.60	1.04	5.80	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	722.8494837
5592050	7/27/2013	5.6	5.60	1.04	5.80	6200	64.7587%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	722.8494837
5592050	12/28/1991	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572
5592050	7/13/1994	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572
5592050	1/2/1996	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572
5592050	12/23/1996	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572
5592050	1/2/1997	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572
5592050	1/4/1997	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572
5592050	1/19/1997	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572
5592050	6/27/1997	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572
5592050	12/5/1997	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572
5592050	12/22/1997	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572
5592050	4/24/2000	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572
5592050	3/10/2003	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/5/2006	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572
5592050	6/10/2007	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572
5592050	7/13/2007	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572
5592050	11/30/2007	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572
5592050	8/2/2009	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572
5592050	10/31/2010	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572
5592050	6/8/2012	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572
5592050	10/25/2012	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572
5592050	11/15/2012	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572
5592050	8/8/2015	5.5	5.50	1.04	5.70	6220	64.9676%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	709.9414572
5592050	6/23/1991	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	11/23/1991	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	12/29/1991	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	2/7/1992	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	2/14/1992	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	3/1/1992	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	3/15/1992	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	8/29/1993	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	9/6/1994	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	11/14/1995	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	12/14/1995	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	12/15/1995	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	1/9/1996	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	1/10/1996	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	12/21/2002	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	2/14/2006	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	2/15/2006	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	2/27/2006	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	8/25/2006	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	8/26/2006	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	8/1/2007	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/28/2007	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	1/28/2008	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	10/22/2010	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	10/19/2012	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	7/28/2015	5.4	5.40	1.04	5.60	6242	65.1974%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	697.0334307
5592050	10/27/1990	5.3	5.30	1.04	5.49	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	684.1254042
5592050	3/9/1992	5.3	5.30	1.04	5.49	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	684.1254042
5592050	3/11/1992	5.3	5.30	1.04	5.49	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	684.1254042
5592050	3/13/1992	5.3	5.30	1.04	5.49	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	684.1254042
5592050	8/4/1992	5.3	5.30	1.04	5.49	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	684.1254042
5592050	6/5/2000	5.3	5.30	1.04	5.49	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	684.1254042
5592050	7/24/2002	5.3	5.30	1.04	5.49	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	684.1254042
5592050	6/30/2003	5.3	5.30	1.04	5.49	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	684.1254042
5592050	7/12/2007	5.3	5.30	1.04	5.49	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	684.1254042
5592050	9/2/2008	5.3	5.30	1.04	5.49	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	684.1254042
5592050	8/7/2010	5.3	5.30	1.04	5.49	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	684.1254042
5592050	10/21/2010	5.3	5.30	1.04	5.49	6268	65.4690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	684.1254042
5592050	2/9/1990	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	3/2/1992	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	3/3/1992	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	3/4/1992	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	3/10/1992	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	3/12/1992	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	3/14/1992	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	3/16/1992	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	3/17/1992	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	12/10/1996	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	1/1/1997	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	11/12/1998	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	9/19/2000	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	7/20/2002	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/22/2002	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	4/12/2003	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	4/19/2003	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	7/6/2006	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	7/29/2007	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	11/24/2007	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	1/25/2008	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	7/31/2009	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	10/4/2010	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	1/1/2013	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	7/30/2013	5.2	5.20	1.04	5.39	6280	65.5943%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	671.2173777
5592050	11/8/1990	5.1	5.10	1.04	5.29	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.3093512
5592050	11/3/1995	5.1	5.10	1.04	5.29	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.3093512
5592050	7/5/1997	5.1	5.10	1.04	5.29	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.3093512
5592050	6/4/2000	5.1	5.10	1.04	5.29	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.3093512
5592050	6/7/2000	5.1	5.10	1.04	5.29	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.3093512
5592050	7/13/2001	5.1	5.10	1.04	5.29	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.3093512
5592050	2/13/2006	5.1	5.10	1.04	5.29	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.3093512
5592050	7/15/2006	5.1	5.10	1.04	5.29	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.3093512
5592050	9/4/2006	5.1	5.10	1.04	5.29	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.3093512
5592050	12/9/2007	5.1	5.10	1.04	5.29	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.3093512
5592050	8/3/2008	5.1	5.10	1.04	5.29	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.3093512
5592050	8/7/2009	5.1	5.10	1.04	5.29	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.3093512
5592050	11/8/2011	5.1	5.10	1.04	5.29	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.3093512
5592050	1/19/2014	5.1	5.10	1.04	5.29	6305	65.8554%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	658.3093512
5592050	10/28/1990	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	12/2/1991	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	12/7/1991	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	12/21/1991	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	1/16/1992	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	5/29/1992	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/7/1992	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	8/30/1993	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	7/14/1994	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	7/22/1994	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	8/15/1994	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	7/25/1995	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	12/27/1995	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	12/31/1996	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	1/20/1997	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	6/28/1997	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	6/30/1997	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	12/30/1998	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	4/25/2000	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	10/25/2002	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	2/3/2003	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	4/17/2003	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	4/21/2003	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	10/16/2003	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	7/6/2004	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	8/29/2006	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	6/11/2007	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	9/9/2007	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	1/27/2008	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	8/15/2010	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	10/17/2010	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	7/25/2011	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	7/27/2011	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	6/9/2012	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	9/20/2014	5	5.00	1.04	5.18	6319	66.0017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	645.4013247
5592050	2/10/1990	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	12/6/1991	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/12/1991	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	12/30/1991	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	6/17/1992	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	7/29/1996	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	12/11/1996	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	1/3/1997	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	1/7/1997	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	7/24/2000	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	8/19/2000	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	7/21/2002	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	7/13/2003	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	6/28/2004	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	7/18/2004	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	3/4/2006	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	8/23/2008	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	8/1/2009	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	8/8/2010	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	8/21/2010	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	10/5/2010	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	10/7/2010	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	10/10/2010	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	10/13/2010	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	10/14/2010	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	10/15/2010	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	10/20/2010	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	6/11/2012	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	9/7/2012	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	10/22/2012	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	7/28/2013	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	2/13/2014	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982
5592050	8/21/2014	4.9	4.90	1.04	5.08	6354	66.3672%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	632.4932982

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/25/1990	4.8	4.80	1.04	4.98	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	619.5852717
5592050	12/22/1991	4.8	4.80	1.04	4.98	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	619.5852717
5592050	11/7/1992	4.8	4.80	1.04	4.98	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	619.5852717
5592050	12/16/1997	4.8	4.80	1.04	4.98	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	619.5852717
5592050	8/20/2000	4.8	4.80	1.04	4.98	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	619.5852717
5592050	5/4/2003	4.8	4.80	1.04	4.98	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	619.5852717
5592050	6/18/2005	4.8	4.80	1.04	4.98	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	619.5852717
5592050	7/16/2005	4.8	4.80	1.04	4.98	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	619.5852717
5592050	12/31/2005	4.8	4.80	1.04	4.98	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	619.5852717
5592050	3/6/2006	4.8	4.80	1.04	4.98	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	619.5852717
5592050	7/7/2006	4.8	4.80	1.04	4.98	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	619.5852717
5592050	9/8/2006	4.8	4.80	1.04	4.98	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	619.5852717
5592050	1/26/2008	4.8	4.80	1.04	4.98	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	619.5852717
5592050	8/3/2009	4.8	4.80	1.04	4.98	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	619.5852717
5592050	10/6/2010	4.8	4.80	1.04	4.98	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	619.5852717
5592050	10/18/2010	4.8	4.80	1.04	4.98	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	619.5852717
5592050	10/19/2010	4.8	4.80	1.04	4.98	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	619.5852717
5592050	7/6/2014	4.8	4.80	1.04	4.98	6387	66.7119%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	619.5852717
5592050	2/8/1990	4.7	4.70	1.04	4.87	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	606.6772452
5592050	7/17/1990	4.7	4.70	1.04	4.87	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	606.6772452
5592050	12/8/1991	4.7	4.70	1.04	4.87	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	606.6772452
5592050	8/26/1995	4.7	4.70	1.04	4.87	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	606.6772452
5592050	8/30/2000	4.7	4.70	1.04	4.87	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	606.6772452
5592050	3/7/2006	4.7	4.70	1.04	4.87	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	606.6772452
5592050	6/12/2007	4.7	4.70	1.04	4.87	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	606.6772452
5592050	7/31/2007	4.7	4.70	1.04	4.87	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	606.6772452
5592050	9/8/2007	4.7	4.70	1.04	4.87	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	606.6772452
5592050	12/4/2007	4.7	4.70	1.04	4.87	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	606.6772452
5592050	10/8/2010	4.7	4.70	1.04	4.87	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	606.6772452
5592050	10/16/2010	4.7	4.70	1.04	4.87	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	606.6772452
5592050	10/18/2012	4.7	4.70	1.04	4.87	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	606.6772452

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/5/2014	4.7	4.70	1.04	4.87	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	606.6772452
5592050	7/8/2014	4.7	4.70	1.04	4.87	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	606.6772452
5592050	7/29/2015	4.7	4.70	1.04	4.87	6405	66.8999%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	606.6772452
5592050	2/3/1990	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	1/2/1992	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	5/30/1992	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	7/25/1992	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	12/10/1997	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	12/17/1997	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	8/13/1998	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	8/16/1998	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	8/17/2000	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	9/9/2003	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	1/13/2006	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	3/5/2006	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	7/8/2006	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	9/7/2007	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	9/10/2008	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	10/9/2010	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	10/12/2010	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	7/20/2011	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	6/10/2012	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	10/28/2012	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	1/2/2013	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	8/1/2013	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	1/9/2014	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	11/20/2015	4.6	4.60	1.04	4.77	6421	67.0671%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	593.7692187
5592050	10/29/1990	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	12/15/1991	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	1/1/1992	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	2/8/1992	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/15/1994	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	7/18/1995	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	1/1/1996	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	6/29/1997	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	7/6/1997	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	8/2/1998	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	8/15/1998	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	7/30/2000	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	8/21/2000	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	7/25/2001	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	7/25/2002	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	10/30/2002	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	1/4/2003	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	7/1/2003	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	9/26/2003	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	11/28/2005	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	1/3/2006	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	10/18/2007	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	8/8/2009	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	10/18/2009	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	10/20/2009	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	8/9/2010	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	7/30/2011	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	6/13/2012	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	12/12/2012	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	1/10/2013	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	8/9/2014	4.5	4.50	1.04	4.66	6445	67.3177%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	580.8611922
5592050	10/30/1990	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	6/18/1991	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	12/5/1991	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	5/31/1992	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	6/5/1992	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	11/15/1995	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	7/30/1996	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	1/8/1997	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	4/22/2000	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	8/22/2000	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	7/14/2001	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	4/13/2003	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	7/31/2004	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	11/29/2005	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	7/9/2006	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	6/13/2007	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	9/10/2007	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	12/3/2007	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	10/20/2012	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	12/15/2012	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	1/20/2014	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	2/14/2014	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	7/22/2014	4.4	4.40	1.04	4.56	6476	67.6415%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	567.9531657
5592050	2/11/1990	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	11/9/1990	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	1/3/1992	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	12/16/1995	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	1/10/1997	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	1/17/1997	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	8/3/1998	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	7/11/1999	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	2/27/2000	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	3/23/2000	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	3/28/2000	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	7/25/2000	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	6/29/2004	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	6/19/2005	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	7/14/2007	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	7/30/2007	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	9/11/2007	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	12/1/2007	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	12/7/2007	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	10/11/2009	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	11/14/2011	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	11/15/2011	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	11/16/2012	4.3	4.30	1.04	4.46	6499	67.8818%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	555.0451393
5592050	12/31/1991	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	1/4/1992	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	1/21/1992	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	2/13/1992	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	7/9/1992	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	11/8/1992	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	7/21/1995	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	12/28/1995	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	8/14/1998	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	8/1/2000	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	7/27/2001	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	7/26/2002	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	1/4/2006	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	7/24/2006	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	9/9/2006	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	12/2/2007	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	8/8/2008	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	9/11/2008	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	7/21/2011	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	11/4/2011	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	10/21/2012	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	7/29/2013	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	12/24/2013	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	2/17/2014	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	7/7/2014	4.2	4.20	1.04	4.35	6522	68.1220%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	542.1371128
5592050	11/11/1990	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	11/12/1990	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	1/17/1992	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	6/6/1992	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	11/16/1995	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	12/21/1998	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	5/24/2000	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	7/31/2000	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	8/16/2000	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	10/2/2000	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	10/31/2002	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	7/2/2003	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	7/19/2004	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	8/26/2004	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	6/24/2005	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	7/11/2006	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	7/16/2006	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	6/14/2007	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	8/4/2008	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	11/25/2011	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	1/3/2013	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	7/30/2015	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	8/9/2015	4.1	4.10	1.04	4.25	6547	68.3831%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	529.2290863
5592050	10/31/1990	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	11/1/1990	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	11/10/1990	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	12/16/1991	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	1/5/1992	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	6/4/1992	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	8/5/1992	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	7/16/1994	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	7/23/1994	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	12/31/1995	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	12/12/1996	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	1/9/1997	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	12/31/1998	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	8/11/2000	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	10/26/2002	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	4/14/2003	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	9/28/2003	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	10/12/2003	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	11/2/2003	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	1/2/2006	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	1/12/2006	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	7/10/2006	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	9/12/2007	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	9/1/2008	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	8/10/2010	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	7/31/2011	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	9/2/2012	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	10/27/2012	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	8/2/2013	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	9/22/2014	4	4.00	1.04	4.15	6570	68.6234%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	516.3210598
5592050	11/26/1990	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	12/17/1991	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	2/11/1992	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	2/12/1992	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/17/1992	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	11/9/1992	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	8/27/1995	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	11/17/1995	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	11/18/1995	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	1/11/1997	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	12/18/1997	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	4/26/2000	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	5/8/2000	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	8/12/2000	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	8/15/2000	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	2/4/2003	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	7/7/2004	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	6/15/2007	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	11/25/2007	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	12/8/2007	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	8/22/2008	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	8/9/2009	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	10/19/2009	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	7/22/2011	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	6/14/2012	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	11/17/2012	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	1/4/2013	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	1/9/2013	3.9	3.90	1.04	4.04	6600	68.9367%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	503.4130333
5592050	1/8/1990	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	8/14/1990	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	11/22/1990	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	11/25/1990	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	11/1/1991	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	12/9/1991	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	1/18/1992	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/9/1992	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	6/1/1992	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	7/14/1992	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	12/29/1995	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	7/7/1997	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	12/7/1998	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	12/23/1998	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	3/24/2000	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	6/8/2000	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	8/14/2000	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	7/15/2001	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	7/4/2004	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	6/23/2005	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	9/3/2006	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	8/21/2009	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	8/11/2010	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	11/7/2011	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	12/13/2012	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	8/3/2013	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	1/21/2014	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	2/15/2014	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	7/9/2014	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	8/20/2014	3.8	3.80	1.04	3.94	6628	69.2292%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	490.5050068
5592050	2/12/1990	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	2/14/1990	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	7/21/1990	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	11/2/1990	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	11/13/1990	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	11/23/1990	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	6/24/1991	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	1/6/1992	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/10/1992	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	6/3/1992	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	6/18/1992	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	7/17/1994	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	11/19/1995	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	12/30/1995	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	7/31/1996	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	1/16/1997	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	12/6/1997	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	7/26/2000	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	8/13/2000	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	4/15/2003	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	7/3/2003	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	9/10/2003	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	6/30/2004	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	6/20/2005	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	6/16/2007	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	9/13/2007	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	12/5/2007	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	7/23/2011	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	12/14/2012	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	1/5/2013	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	12/14/2013	3.7	3.70	1.04	3.84	6658	69.5425%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	477.5969803
5592050	7/18/1990	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538
5592050	11/3/1990	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538
5592050	11/14/1990	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538
5592050	11/24/1990	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538
5592050	6/19/1991	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538
5592050	11/24/1991	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538
5592050	12/18/1991	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538
5592050	1/7/1992	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	1/19/1992	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538
5592050	7/19/1995	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538
5592050	1/12/1997	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538
5592050	7/8/1997	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538
5592050	5/7/2000	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538
5592050	7/29/2000	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538
5592050	1/1/2006	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538
5592050	1/11/2006	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538
5592050	8/26/2007	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538
5592050	10/16/2007	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538
5592050	11/26/2007	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538
5592050	8/5/2008	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538
5592050	10/21/2009	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538
5592050	8/22/2010	3.6	3.60	1.04	3.73	6689	69.8663%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	464.6889538
5592050	1/7/1990	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	2/13/1990	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	11/15/1990	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	11/21/1990	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	1/20/1992	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	6/19/1992	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	7/18/1994	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	7/24/1994	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	12/13/1996	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	1/13/1997	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	1/14/1997	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	1/15/1997	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	8/19/1998	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	12/8/1998	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	12/29/1998	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	1/1/1999	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	7/12/1999	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/27/2002	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	4/16/2003	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	10/17/2003	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	11/3/2003	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	11/7/2003	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	7/7/2005	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	7/18/2006	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	7/20/2006	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	8/30/2006	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	9/10/2006	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	8/25/2007	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	8/12/2010	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	7/24/2011	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	7/28/2011	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	8/1/2011	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	11/26/2011	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	9/2/2014	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	8/10/2015	3.5	3.50	1.04	3.63	6711	70.0961%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	451.7809273
5592050	7/26/1990	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	11/4/1990	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	11/16/1990	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	11/20/1995	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	12/17/1995	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	8/1/1996	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	8/18/1998	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	11/14/1998	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	11/15/1998	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	12/24/1998	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	3/29/2000	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	4/17/2000	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	4/27/2000	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/23/2000	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	8/31/2000	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	9/18/2000	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	1/6/2003	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	11/16/2003	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	7/20/2004	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	1/5/2006	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	7/17/2006	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	8/7/2006	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	9/14/2007	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	11/27/2007	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	12/6/2007	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	8/10/2009	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	8/13/2010	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	8/23/2010	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	1/22/2014	3.4	3.40	1.04	3.52	6746	70.4617%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	438.8729008
5592050	11/17/1990	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	11/18/1990	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	11/19/1990	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	11/20/1990	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	12/10/1991	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	6/2/1992	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	8/6/1992	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	8/28/1995	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	11/1/1995	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	8/17/1998	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	2/20/2000	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	4/23/2000	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	7/27/2000	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	7/19/2001	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	12/22/2002	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	5/2/2003	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	7/4/2003	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	7/5/2004	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	7/8/2004	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	1/10/2006	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	7/19/2006	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	7/25/2006	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	6/17/2007	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	8/20/2007	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	8/16/2010	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	6/15/2012	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	10/29/2012	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	11/18/2012	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	1/6/2013	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	8/4/2013	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	12/15/2013	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	2/16/2014	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	7/23/2014	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	7/31/2015	3.3	3.30	1.04	3.42	6775	70.7646%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	425.9648743
5592050	6/20/1991	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	10/31/1991	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	7/20/1995	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	12/14/1996	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	12/15/1996	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	12/16/1996	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	12/19/1997	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	12/25/1998	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	3/25/2000	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	6/9/2000	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	6/13/2000	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	9/12/2000	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/16/2001	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	7/28/2002	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	11/1/2002	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	1/5/2003	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	4/22/2003	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	7/20/2003	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	6/21/2005	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	1/8/2006	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	1/9/2006	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	6/20/2007	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	8/27/2007	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	9/6/2007	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	11/9/2011	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	9/3/2012	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	1/7/2013	3.2	3.20	1.04	3.32	6809	71.1197%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	413.0568478
5592050	7/5/1992	3.1	3.10	1.04	3.21	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	400.1488213
5592050	7/22/1992	3.1	3.10	1.04	3.21	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	400.1488213
5592050	11/2/1994	3.1	3.10	1.04	3.21	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	400.1488213
5592050	8/2/1996	3.1	3.10	1.04	3.21	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	400.1488213
5592050	12/17/1996	3.1	3.10	1.04	3.21	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	400.1488213
5592050	12/9/1998	3.1	3.10	1.04	3.21	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	400.1488213
5592050	4/28/2000	3.1	3.10	1.04	3.21	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	400.1488213
5592050	7/18/2001	3.1	3.10	1.04	3.21	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	400.1488213
5592050	9/11/2003	3.1	3.10	1.04	3.21	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	400.1488213
5592050	7/1/2004	3.1	3.10	1.04	3.21	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	400.1488213
5592050	7/30/2004	3.1	3.10	1.04	3.21	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	400.1488213
5592050	6/22/2005	3.1	3.10	1.04	3.21	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	400.1488213
5592050	1/6/2006	3.1	3.10	1.04	3.21	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	400.1488213
5592050	1/7/2006	3.1	3.10	1.04	3.21	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	400.1488213
5592050	9/15/2007	3.1	3.10	1.04	3.21	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	400.1488213
5592050	8/11/2009	3.1	3.10	1.04	3.21	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	400.1488213

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	10/22/2009	3.1	3.10	1.04	3.21	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	400.1488213
5592050	11/19/2012	3.1	3.10	1.04	3.21	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	400.1488213
5592050	12/20/2013	3.1	3.10	1.04	3.21	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	400.1488213
5592050	1/23/2014	3.1	3.10	1.04	3.21	6836	71.4017%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	400.1488213
5592050	1/9/1990	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	7/19/1990	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	6/21/1991	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	11/19/1991	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	11/27/1991	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	11/28/1991	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	7/25/1994	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	8/16/1994	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	8/29/1995	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	11/21/1995	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	9/11/1997	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	11/16/1998	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	12/2/1998	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	12/3/1998	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	12/13/1998	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	12/14/1998	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	12/20/1998	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	12/26/1998	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	7/13/1999	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	3/19/2000	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	3/26/2000	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	6/12/2000	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	7/28/2000	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	9/20/2002	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	1/8/2003	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	5/3/2003	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	7/14/2003	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	10/13/2003	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	11/8/2003	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	7/21/2004	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	8/27/2004	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	9/11/2006	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	6/18/2007	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	8/24/2007	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	8/31/2008	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	8/2/2011	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	1/8/2013	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	8/1/2015	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	8/11/2015	3	3.00	1.04	3.11	6856	71.6106%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	387.2407948
5592050	11/2/1991	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	12/11/1991	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	11/26/1995	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	11/27/1995	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	7/9/1997	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	12/7/1997	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	12/21/1997	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	12/10/1998	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	12/12/1998	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	12/16/1998	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	12/17/1998	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	12/18/1998	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	12/19/1998	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	2/28/2000	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	3/30/2000	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	7/20/2001	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	6/26/2005	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	7/26/2006	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	8/31/2006	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	6/21/2007	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	9/16/2007	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	11/3/2011	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	11/20/2012	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	8/5/2013	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	8/24/2013	2.9	2.90	1.04	3.01	6895	72.0180%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	374.3327683
5592050	7/20/1990	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	8/21/1990	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	11/29/1991	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	12/20/1991	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	6/20/1992	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	7/10/1992	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	8/7/1992	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	11/22/1995	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	8/20/1998	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	11/4/1998	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	12/11/1998	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	12/15/1998	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	12/27/1998	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	4/7/2000	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	4/18/2000	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	4/29/2000	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	6/10/2000	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	7/17/2001	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	7/29/2002	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	1/7/2003	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	7/5/2003	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	10/18/2003	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	11/4/2003	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	11/17/2003	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	8/5/2006	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/6/2006	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	6/19/2007	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	8/23/2007	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	9/4/2007	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	6/16/2012	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	6/17/2012	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	11/21/2012	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	8/8/2013	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	1/24/2014	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	7/10/2014	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	9/23/2014	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	8/2/2015	2.8	2.80	1.04	2.90	6920	72.2791%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	361.4247418
5592050	8/8/1992	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	7/26/1994	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	11/23/1995	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	11/25/1995	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	11/25/1998	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	12/28/1998	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	7/14/1999	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	3/31/2000	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	6/11/2000	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	7/28/2001	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	10/27/2002	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	7/9/2003	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	7/31/2003	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	8/1/2003	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	11/15/2003	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	7/2/2004	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	7/3/2004	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	7/31/2006	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	8/1/2006	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	8/4/2006	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	9/3/2007	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	8/9/2008	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	8/12/2009	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	10/30/2012	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	11/22/2012	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	8/6/2013	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	8/7/2013	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	8/9/2013	2.7	2.70	1.04	2.80	6957	72.6656%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	348.5167153
5592050	7/27/1990	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	6/25/1991	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	11/25/1991	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	12/19/1991	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	8/30/1995	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	11/24/1995	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	12/1/1995	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	12/2/1995	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	8/3/1996	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	7/10/1997	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	12/20/1997	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	11/17/1998	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	12/4/1998	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	12/6/1998	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	2/24/2000	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	2/26/2000	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	5/9/2000	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	7/21/2001	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	7/22/2001	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	1/9/2003	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	7/6/2003	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	11/9/2003	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/11/2003	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	7/22/2004	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	7/27/2006	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	7/29/2006	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	7/30/2006	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	8/2/2006	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	8/3/2006	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	9/17/2007	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	11/22/2007	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	11/23/2007	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	8/30/2008	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	8/17/2010	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	8/24/2010	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	10/8/2012	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	12/6/2012	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	12/25/2013	2.6	2.60	1.04	2.70	6985	72.9580%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	335.6086888
5592050	1/6/1990	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	1/20/1990	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	1/21/1990	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	8/9/1992	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	7/27/1994	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	8/17/1994	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	8/31/1995	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	12/3/1995	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	12/13/1995	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	12/18/1996	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	12/8/1997	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	12/9/1997	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	8/21/1998	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	11/18/1998	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	11/26/1998	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/14/1999	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	2/21/2000	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	4/1/2000	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	4/2/2000	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	4/3/2000	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	4/8/2000	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	9/12/2003	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	11/6/2003	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	7/17/2005	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	7/28/2006	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	9/1/2006	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	9/12/2006	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	8/22/2007	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	8/24/2008	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	8/29/2008	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	8/13/2009	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	8/22/2009	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	7/29/2011	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	8/3/2011	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	11/10/2011	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	6/18/2012	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	11/23/2012	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	11/24/2012	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	8/10/2013	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	1/25/2014	2.5	2.50	1.04	2.59	7023	73.3549%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	322.7006624
5592050	7/2/1991	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	10/26/1991	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	10/30/1991	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	11/26/1991	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	7/12/1992	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	12/4/1995	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/19/1998	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	11/23/1998	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	7/15/1999	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	4/30/2000	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	7/23/2001	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	7/30/2002	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	10/29/2002	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	11/2/2002	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	12/23/2002	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	2/5/2003	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	4/25/2003	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	5/1/2003	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	7/7/2003	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	7/15/2003	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	9/29/2003	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	11/12/2003	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	7/23/2004	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	8/1/2004	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	9/2/2006	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	9/2/2007	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	10/19/2007	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	7/14/2012	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	8/13/2013	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	8/3/2015	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	8/5/2015	2.4	2.40	1.04	2.49	7063	73.7727%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	309.7926359
5592050	1/10/1990	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	1/17/1990	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	10/4/1990	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	10/5/1991	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	6/21/1992	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	7/28/1994	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/7/1995	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	11/28/1995	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	11/30/1995	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	12/7/1995	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	8/4/1996	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	8/23/1998	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	11/2/1998	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	11/20/1998	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	11/27/1998	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	12/5/1998	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	1/4/2000	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	2/22/2000	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	2/25/2000	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	2/29/2000	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	3/14/2000	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	5/1/2000	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	5/2/2000	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	5/13/2000	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	9/16/2000	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	9/10/2001	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	2/2/2003	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	7/8/2003	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	10/19/2003	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	11/10/2003	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	7/25/2004	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	12/27/2005	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	9/5/2007	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	10/12/2009	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	10/6/2012	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	12/3/2012	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	12/3/2013	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	12/26/2013	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	1/26/2014	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	1/30/2014	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	8/4/2015	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	8/12/2015	2.3	2.30	1.04	2.38	7094	74.0965%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	296.8846094
5592050	11/3/1991	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	7/18/1992	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	7/29/1994	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	8/18/1994	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	11/3/1994	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	11/29/1995	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	12/6/1995	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	12/8/1995	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	8/5/1996	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	12/19/1996	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	7/11/1997	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	8/22/1998	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	11/21/1998	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	11/22/1998	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	11/24/1998	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	11/28/1998	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	3/13/2000	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	4/4/2000	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	4/19/2000	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	9/1/2000	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	9/17/2000	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	10/3/2000	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	7/29/2001	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	4/23/2003	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	4/26/2003	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	9/13/2003	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	9/20/2003	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	11/13/2003	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	8/2/2004	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	6/27/2005	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	11/30/2005	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	9/18/2007	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	10/17/2007	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	11/21/2007	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	8/28/2008	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	8/14/2009	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	8/4/2011	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	11/16/2011	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	6/19/2012	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	10/31/2012	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	8/14/2013	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	8/22/2013	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	1/27/2014	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	1/28/2014	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	7/24/2014	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	9/6/2014	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	9/25/2014	2.2	2.20	1.04	2.28	7136	74.5352%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	283.9765829
5592050	1/18/1990	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	7/28/1990	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	6/26/1991	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	7/13/1991	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	6/22/1992	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	8/10/1992	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	7/30/1994	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	12/5/1995	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	12/22/1996	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	8/24/1998	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/9/1998	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	11/29/1998	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	12/1/1998	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	2/23/2000	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	3/1/2000	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	3/15/2000	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	4/9/2000	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	5/3/2000	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	10/28/2002	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	11/10/2002	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	11/11/2002	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	7/26/2004	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	7/8/2005	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	10/18/2006	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	8/21/2007	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	8/28/2007	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	9/1/2007	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	8/25/2008	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	8/18/2009	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	8/19/2009	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	8/18/2010	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	8/10/2011	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	9/14/2011	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	10/17/2012	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	11/7/2012	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	11/11/2012	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	8/11/2013	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	8/12/2013	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	8/16/2013	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	1/29/2014	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	9/3/2014	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	8/13/2015	2.1	2.10	1.04	2.18	7183	75.0261%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	271.0685564
5592050	1/5/1990	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	1/11/1990	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	1/22/1990	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	11/18/1991	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	7/31/1994	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	9/1/1995	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	11/6/1996	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	11/30/1998	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	7/16/1999	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	11/2/1999	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	4/5/2000	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	4/6/2000	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	4/10/2000	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	5/10/2000	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	5/25/2000	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	9/15/2000	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	9/21/2002	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	12/24/2002	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	1/10/2003	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	4/24/2003	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	4/29/2003	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	7/16/2003	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	7/17/2003	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	8/31/2003	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	9/30/2003	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	10/26/2003	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	11/5/2003	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	11/14/2003	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	10/15/2004	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	7/13/2005	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	9/13/2006	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	8/23/2009	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	8/5/2011	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	8/9/2011	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	8/11/2011	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	8/16/2011	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	11/11/2011	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	6/20/2012	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	11/2/2012	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	11/3/2012	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	11/25/2012	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	11/26/2012	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	12/2/2012	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	12/4/2012	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	12/5/2012	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	12/8/2012	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	8/15/2013	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	8/17/2013	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	12/27/2013	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	1/8/2014	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	7/11/2014	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	8/11/2014	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	9/24/2014	2	2.00	1.04	2.07	7225	75.4648%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	258.1605299
5592050	7/29/1990	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	7/3/1991	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	8/8/1991	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	7/11/1992	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	10/28/1995	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	8/6/1996	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	11/9/1996	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	12/20/1996	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	12/21/1996	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	7/17/1999	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	3/4/2000	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	3/12/2000	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	3/16/2000	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	4/11/2000	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	5/4/2000	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	4/27/2003	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	7/30/2003	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	19	mg/L	23.1	28.3	201.7228383	245.2525034
5592050	9/14/2003	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	10/20/2003	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	7/24/2004	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	6/28/2005	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	7/12/2005	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	12/26/2005	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	11/14/2007	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	8/10/2008	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	8/15/2009	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	8/12/2011	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	8/13/2011	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	10/18/2011	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	11/5/2011	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	11/12/2011	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	11/17/2011	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	9/1/2012	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	10/7/2012	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	11/1/2012	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	11/4/2012	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	11/27/2012	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	8/18/2013	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	8/19/2013	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/26/2014	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	8/14/2015	1.9	1.90	1.04	1.97	7278	76.0184%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	245.2525034
5592050	6/27/1991	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	6/23/1992	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	8/1/1994	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	8/19/1994	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	9/2/1995	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	10/31/1995	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	12/9/1995	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	12/12/1995	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	8/20/1997	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	7/18/1999	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	3/2/2000	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	3/3/2000	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	3/5/2000	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	4/12/2000	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	4/15/2000	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	4/16/2000	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	5/5/2000	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	5/26/2000	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	7/31/2002	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	12/25/2002	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	4/28/2003	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	4/30/2003	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	7/29/2003	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	10/28/2003	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	7/14/2005	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	7/19/2005	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	11/20/2007	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	8/26/2008	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	8/27/2008	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	8/17/2009	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	8/19/2010	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	8/25/2010	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	8/6/2011	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	11/13/2011	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	11/21/2011	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	6/21/2012	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	11/6/2012	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	11/8/2012	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	11/9/2012	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	11/10/2012	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	11/28/2012	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	12/13/2013	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	12/28/2013	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	7/25/2014	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	7/27/2014	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	9/26/2014	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	8/19/2015	1.8	1.80	1.04	1.87	7319	76.4466%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	232.3444769
5592050	1/19/1990	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	1/23/1990	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	1/24/1990	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	7/1/1991	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	11/4/1991	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	6/24/1992	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	6/25/1992	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	7/13/1992	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	8/2/1994	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	8/29/1994	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	9/3/1995	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	9/4/1995	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	9/10/1995	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/7/1996	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	11/24/1996	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	7/12/1997	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	8/25/1998	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	8/27/1998	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	4/13/2000	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	4/14/2000	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	5/6/2000	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	7/30/2001	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	8/2/2001	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	11/3/2002	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	11/9/2002	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	9/15/2003	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	10/1/2003	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	8/3/2004	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	6/29/2005	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	7/15/2005	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	7/18/2005	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	11/27/2005	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	12/1/2005	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	12/15/2005	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	8/31/2007	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	9/19/2007	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	11/13/2007	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	11/15/2007	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	11/17/2007	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	8/16/2009	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	10/13/2009	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	8/7/2011	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	9/4/2012	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	10/15/2012	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/5/2012	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	11/29/2012	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	11/30/2012	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	12/1/2012	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	8/20/2013	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	8/21/2013	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	11/19/2013	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	8/10/2014	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	8/20/2015	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	11/16/2015	1.7	1.70	1.04	1.76	7366	76.9375%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	219.4364504
5592050	1/25/1990	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	1/26/1990	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	2/1/1990	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	7/30/1990	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	7/31/1990	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	8/22/1990	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	10/27/1991	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	6/26/1992	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	8/11/1992	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	8/3/1994	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	10/31/1994	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	9/5/1995	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	9/6/1995	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	9/7/1995	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	9/24/1995	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	10/3/1995	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	10/27/1995	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	8/19/1997	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	7/19/1999	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	3/6/2000	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	3/7/2000	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	3/17/2000	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	5/11/2000	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	5/14/2000	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	9/2/2000	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	9/19/2001	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	8/1/2002	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	10/24/2002	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	11/4/2002	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	11/5/2002	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	11/7/2002	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	11/8/2002	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	11/12/2002	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	12/26/2002	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	12/29/2002	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	2/6/2003	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	7/21/2003	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	9/21/2003	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	10/21/2003	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	10/27/2003	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	7/27/2004	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	10/16/2004	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	6/30/2005	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	7/9/2005	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	11/1/2005	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	12/16/2005	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	12/25/2005	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	10/17/2006	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	11/16/2007	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	11/18/2007	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	8/8/2011	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	11/18/2011	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/20/2011	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	10/16/2012	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	12/2/2013	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	12/19/2013	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	12/29/2013	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	8/15/2015	1.6	1.60	1.04	1.66	7420	77.5016%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	206.5284239
5592050	1/4/1990	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	1/12/1990	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	1/27/1990	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	8/4/1990	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	8/19/1990	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	8/23/1990	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	7/19/1992	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	7/23/1992	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	8/4/1994	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	10/18/1994	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	9/8/1995	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	9/9/1995	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	9/11/1995	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	9/13/1995	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	9/17/1995	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	9/25/1995	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	10/4/1995	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	10/29/1995	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	12/10/1995	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	12/11/1995	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	8/23/1997	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	8/24/1997	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	9/12/1997	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	8/26/1998	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	9/1/1998	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	9/2/1998	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	9/3/1998	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	11/5/1998	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	12/15/1999	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	3/8/2000	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	3/11/2000	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	3/18/2000	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	5/12/2000	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	8/4/2001	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	9/18/2001	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	8/2/2002	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	8/19/2002	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	11/13/2002	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	11/14/2002	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	12/27/2002	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	12/28/2002	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	1/11/2003	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	2/14/2003	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	9/16/2003	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	9/19/2003	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	10/14/2004	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	7/20/2005	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	11/15/2005	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	11/16/2005	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	12/2/2005	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	9/14/2006	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	8/29/2007	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	10/27/2007	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	10/31/2007	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	11/9/2007	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	11/12/2007	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/19/2007	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	8/11/2008	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	8/24/2009	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	8/20/2010	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	8/14/2011	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	8/17/2011	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	9/15/2011	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	11/19/2011	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	6/22/2012	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	9/9/2012	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	12/7/2012	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	10/31/2013	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	11/18/2013	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	12/1/2013	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	12/16/2013	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	12/30/2013	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	10/1/2014	1.5	1.50	1.04	1.55	7478	78.1074%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	193.6203974
5592050	1/16/1990	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	8/1/1990	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	8/5/1990	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	8/15/1990	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	6/28/1991	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	11/5/1991	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	8/5/1994	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	8/20/1994	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	9/7/1994	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	10/17/1994	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	9/12/1995	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	9/14/1995	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	9/15/1995	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	9/16/1995	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	9/18/1995	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	9/19/1995	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	9/20/1995	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	9/23/1995	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	9/26/1995	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	10/21/1995	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	11/8/1995	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	8/8/1996	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	7/13/1997	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	8/21/1997	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	8/30/1998	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	8/31/1998	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	7/20/1999	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	3/9/2000	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	3/10/2000	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	10/11/2001	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	11/6/2002	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	2/10/2003	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	2/11/2003	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	9/25/2003	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	10/2/2003	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	10/22/2003	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	10/29/2003	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	7/28/2004	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	10/17/2004	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	7/1/2005	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	11/17/2005	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	12/17/2005	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	12/24/2005	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	9/18/2006	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	8/30/2007	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	9/20/2007	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	10/26/2007	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	10/28/2007	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	10/29/2007	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	10/30/2007	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	8/12/2008	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	8/13/2008	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	9/26/2011	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	6/23/2012	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	10/14/2012	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	11/20/2013	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	11/30/2013	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	12/31/2013	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	8/16/2015	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	8/17/2015	1.4	1.40	1.04	1.45	7551	78.8699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	180.7123709
5592050	6/27/1992	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	8/12/1992	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	8/6/1994	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	10/20/1994	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	9/21/1995	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	9/22/1995	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	9/27/1995	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	10/5/1995	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	7/14/1997	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	8/29/1998	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	9/4/1998	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	11/6/1998	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	11/8/1998	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	2/10/2000	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	2/11/2000	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	7/31/2001	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	8/3/2002	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	9/22/2002	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	11/15/2002	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	11/29/2002	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	12/1/2002	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	12/2/2002	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	2/12/2003	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	2/13/2003	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	8/4/2003	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	9/17/2003	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	9/22/2003	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	10/23/2003	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	7/29/2004	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	8/4/2004	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	8/29/2004	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	7/2/2005	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	7/10/2005	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	11/6/2005	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	11/18/2005	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	11/20/2005	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	11/21/2005	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	11/22/2005	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	11/23/2005	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	11/24/2005	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	11/25/2005	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	11/26/2005	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	12/14/2005	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	10/19/2006	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	9/21/2007	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	11/1/2007	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	11/5/2007	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/10/2007	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	11/11/2007	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	8/25/2009	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	10/6/2009	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	10/7/2009	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	10/19/2011	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	6/24/2012	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	7/15/2012	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	9/26/2012	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	10/5/2012	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	10/9/2012	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	1/1/2014	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	9/27/2014	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	9/30/2014	1.3	1.30	1.04	1.35	7611	79.4966%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	167.8043444
5592050	1/13/1990	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	1/28/1990	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	8/2/1990	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	8/3/1990	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	8/20/1990	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	6/29/1991	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	11/16/1991	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	8/7/1994	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	8/31/1994	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	9/28/1995	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	9/29/1995	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	9/30/1995	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	10/1/1995	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	10/2/1995	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	10/30/1995	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	7/23/1997	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	8/22/1997	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	8/28/1998	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	10/30/1998	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	11/7/1998	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	7/21/1999	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	7/27/1999	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	11/3/1999	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	5/15/2000	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	5/16/2000	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	9/14/2000	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	9/11/2001	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	8/4/2002	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	9/19/2002	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	10/19/2002	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	11/16/2002	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	11/26/2002	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	11/27/2002	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	11/28/2002	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	11/30/2002	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	12/3/2002	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	12/4/2002	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	2/1/2003	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	2/9/2003	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	7/22/2003	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	9/18/2003	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	10/3/2003	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	10/24/2003	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	10/30/2003	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	8/28/2004	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	8/30/2004	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	7/3/2005	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	7/4/2005	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/21/2005	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	11/7/2005	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	11/8/2005	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	11/10/2005	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	11/14/2005	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	11/19/2005	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	12/3/2005	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	12/18/2005	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	12/23/2005	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	9/22/2007	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	10/25/2007	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	11/2/2007	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	11/4/2007	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	11/8/2007	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	8/14/2008	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	8/26/2010	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	8/18/2011	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	10/13/2011	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	11/6/2011	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	11/21/2013	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	1/2/2014	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	1/3/2014	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	1/4/2014	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	7/28/2014	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	8/23/2015	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	8/25/2015	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	8/26/2015	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	11/15/2015	1.2	1.20	1.04	1.24	7672	80.1337%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	154.8963179
5592050	1/29/1990	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	1/30/1990	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	1/31/1990	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	8/6/1990	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	8/18/1990	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	7/4/1991	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	10/29/1991	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	11/6/1991	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	11/15/1991	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	11/17/1991	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	7/24/1992	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	8/8/1994	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	10/29/1994	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	10/30/1994	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	8/9/1996	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	11/10/1996	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	7/15/1997	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	7/16/1997	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	7/17/1997	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	9/5/1998	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	10/29/1998	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	11/1/1998	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	7/28/1999	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	12/16/1999	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	1/5/2000	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	5/17/2000	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	5/18/2000	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	9/3/2000	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	9/13/2000	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	8/1/2001	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	9/20/2001	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	11/17/2002	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	11/25/2002	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	12/5/2002	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	12/6/2002	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	12/7/2002	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	12/17/2002	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	1/12/2003	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	1/13/2003	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	2/7/2003	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	2/8/2003	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	7/23/2003	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	7/27/2003	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	10/4/2003	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	10/25/2003	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	8/5/2004	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	7/11/2005	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	10/20/2005	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	11/9/2005	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	11/11/2005	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	11/12/2005	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	11/13/2005	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	12/4/2005	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	12/13/2005	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	12/19/2005	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	12/20/2005	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	12/22/2005	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	9/15/2006	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	9/23/2007	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	9/24/2007	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	10/23/2007	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	10/24/2007	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	11/3/2007	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	11/6/2007	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	8/15/2008	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	9/1/2010	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	9/9/2011	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	10/20/2011	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	10/10/2012	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	11/22/2013	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	12/18/2013	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	1/5/2014	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	1/6/2014	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	1/7/2014	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	8/12/2014	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	8/18/2015	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	8/21/2015	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	8/24/2015	1.1	1.10	1.04	1.14	7748	80.9275%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	141.9882914
5592050	1/3/1990	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	1/14/1990	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	1/15/1990	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	8/16/1990	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	8/24/1990	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	6/30/1991	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	11/7/1991	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	6/28/1992	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	8/13/1992	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	10/31/1992	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	8/9/1994	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	8/21/1994	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	10/28/1994	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	10/20/1995	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	10/26/1995	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	11/18/1996	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	7/24/1997	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	11/27/1997	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	9/6/1998	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	10/31/1998	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	7/22/1999	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	5/19/2000	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	8/5/2001	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	10/5/2001	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	8/5/2002	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	9/23/2002	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	10/12/2002	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	10/20/2002	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	10/23/2002	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	11/18/2002	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	11/22/2002	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	11/23/2002	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	11/24/2002	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	12/8/2002	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	12/9/2002	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	12/10/2002	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	12/16/2002	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	1/14/2003	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	9/23/2003	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	10/5/2003	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	12/21/2005	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	11/7/2007	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	8/16/2008	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	8/26/2009	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	8/15/2011	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	8/19/2011	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	9/16/2011	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	11/1/2013	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	11/23/2013	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	12/17/2013	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	7/29/2014	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	8/22/2015	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	8/27/2015	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	11/14/2015	1	1.00	1.04	1.04	7826	81.7422%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	129.0802649
5592050	7/5/1991	0.99	0.99	1.04	1.03	7880	82.3062%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	127.7894623
5592050	11/14/1991	0.99	0.99	1.04	1.03	7880	82.3062%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	127.7894623
5592050	8/28/1994	0.99	0.99	1.04	1.03	7880	82.3062%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	127.7894623
5592050	8/10/1996	0.99	0.99	1.04	1.03	7880	82.3062%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	127.7894623
5592050	7/25/2003	0.99	0.99	1.04	1.03	7880	82.3062%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	127.7894623
5592050	8/6/2004	0.99	0.99	1.04	1.03	7880	82.3062%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	127.7894623
5592050	7/22/2005	0.99	0.99	1.04	1.03	7880	82.3062%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	127.7894623
5592050	10/20/2006	0.99	0.99	1.04	1.03	7880	82.3062%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	127.7894623
5592050	8/17/2008	0.99	0.99	1.04	1.03	7880	82.3062%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	127.7894623
5592050	7/18/1997	0.98	0.98	1.04	1.02	7889	82.4003%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	126.4986596
5592050	7/22/1997	0.98	0.98	1.04	1.02	7889	82.4003%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	126.4986596
5592050	8/20/2004	0.98	0.98	1.04	1.02	7889	82.4003%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	126.4986596
5592050	12/5/2005	0.98	0.98	1.04	1.02	7889	82.4003%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	126.4986596
5592050	8/29/2009	0.98	0.98	1.04	1.02	7889	82.4003%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	126.4986596
5592050	12/12/2013	0.98	0.98	1.04	1.02	7889	82.4003%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	126.4986596
5592050	10/25/1994	0.97	0.97	1.04	1.01	7895	82.4629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	125.207857
5592050	10/26/1994	0.97	0.97	1.04	1.01	7895	82.4629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	125.207857
5592050	10/27/1994	0.97	0.97	1.04	1.01	7895	82.4629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	125.207857
5592050	7/24/2003	0.97	0.97	1.04	1.01	7895	82.4629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	125.207857
5592050	8/18/2008	0.97	0.97	1.04	1.01	7895	82.4629%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	125.207857
5592050	1/15/2003	0.96	0.96	1.04	1.00	7900	82.5151%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	123.9170543
5592050	10/13/2004	0.96	0.96	1.04	1.00	7900	82.5151%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	123.9170543
5592050	12/12/2005	0.96	0.96	1.04	1.00	7900	82.5151%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	123.9170543
5592050	8/28/2009	0.96	0.96	1.04	1.00	7900	82.5151%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	123.9170543
5592050	9/29/1991	0.95	0.95	1.04	0.98	7904	82.5569%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	122.6262517
5592050	10/28/1991	0.95	0.95	1.04	0.98	7904	82.5569%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	122.6262517

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	11/9/1995	0.95	0.95	1.04	0.98	7904	82.5569%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	122.6262517
5592050	11/4/1999	0.95	0.95	1.04	0.98	7904	82.5569%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	122.6262517
5592050	11/21/2002	0.95	0.95	1.04	0.98	7904	82.5569%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	122.6262517
5592050	12/15/2002	0.95	0.95	1.04	0.98	7904	82.5569%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	122.6262517
5592050	10/31/2003	0.95	0.95	1.04	0.98	7904	82.5569%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	122.6262517
5592050	8/9/2012	0.95	0.95	1.04	0.98	7904	82.5569%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	122.6262517
5592050	8/30/1990	0.94	0.94	1.04	0.97	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.335449
5592050	10/6/1995	0.94	0.94	1.04	0.97	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.335449
5592050	10/22/1995	0.94	0.94	1.04	0.97	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.335449
5592050	9/7/1998	0.94	0.94	1.04	0.97	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.335449
5592050	10/6/1998	0.94	0.94	1.04	0.97	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.335449
5592050	8/6/2002	0.94	0.94	1.04	0.97	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.335449
5592050	11/19/2002	0.94	0.94	1.04	0.97	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.335449
5592050	12/11/2002	0.94	0.94	1.04	0.97	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.335449
5592050	12/12/2002	0.94	0.94	1.04	0.97	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.335449
5592050	1/16/2003	0.94	0.94	1.04	0.97	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.335449
5592050	8/21/2008	0.94	0.94	1.04	0.97	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.335449
5592050	8/29/2014	0.94	0.94	1.04	0.97	7912	82.6405%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	121.335449
5592050	8/12/1990	0.93	0.93	1.04	0.96	7924	82.7658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	120.0446464
5592050	7/27/2005	0.93	0.93	1.04	0.96	7924	82.7658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	120.0446464
5592050	6/25/2012	0.93	0.93	1.04	0.96	7924	82.7658%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	120.0446464
5592050	10/24/1994	0.92	0.92	1.04	0.95	7927	82.7972%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	118.7538437
5592050	8/11/1996	0.92	0.92	1.04	0.95	7927	82.7972%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	118.7538437
5592050	11/19/1996	0.92	0.92	1.04	0.95	7927	82.7972%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	118.7538437
5592050	1/17/2003	0.92	0.92	1.04	0.95	7927	82.7972%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	118.7538437
5592050	10/21/2005	0.92	0.92	1.04	0.95	7927	82.7972%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	118.7538437
5592050	11/5/2005	0.92	0.92	1.04	0.95	7927	82.7972%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	118.7538437
5592050	9/19/2006	0.92	0.92	1.04	0.95	7927	82.7972%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	118.7538437
5592050	8/14/1992	0.91	0.91	1.04	0.94	7934	82.8703%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	117.4630411
5592050	11/10/1995	0.91	0.91	1.04	0.94	7934	82.8703%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	117.4630411
5592050	7/21/1997	0.91	0.91	1.04	0.94	7934	82.8703%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	117.4630411

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/25/1997	0.91	0.91	1.04	0.94	7934	82.8703%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	117.4630411
5592050	5/20/2000	0.91	0.91	1.04	0.94	7934	82.8703%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	117.4630411
5592050	5/22/2000	0.91	0.91	1.04	0.94	7934	82.8703%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	117.4630411
5592050	7/26/2003	0.91	0.91	1.04	0.94	7934	82.8703%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	117.4630411
5592050	6/29/1992	0.9	0.90	1.04	0.93	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	116.1722384
5592050	8/10/1994	0.9	0.90	1.04	0.93	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	116.1722384
5592050	8/12/1996	0.9	0.90	1.04	0.93	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	116.1722384
5592050	12/17/1999	0.9	0.90	1.04	0.93	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	116.1722384
5592050	10/10/2001	0.9	0.90	1.04	0.93	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	116.1722384
5592050	8/15/2002	0.9	0.90	1.04	0.93	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	116.1722384
5592050	10/21/2002	0.9	0.90	1.04	0.93	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	116.1722384
5592050	11/20/2002	0.9	0.90	1.04	0.93	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	116.1722384
5592050	9/24/2003	0.9	0.90	1.04	0.93	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	116.1722384
5592050	10/6/2003	0.9	0.90	1.04	0.93	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	116.1722384
5592050	12/6/2005	0.9	0.90	1.04	0.93	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	116.1722384
5592050	10/20/2007	0.9	0.90	1.04	0.93	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	116.1722384
5592050	11/24/2013	0.9	0.90	1.04	0.93	7941	82.9434%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	116.1722384
5592050	7/6/1991	0.89	0.89	1.04	0.92	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	114.8814358
5592050	10/25/1991	0.89	0.89	1.04	0.92	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	114.8814358
5592050	9/8/1998	0.89	0.89	1.04	0.92	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	114.8814358
5592050	9/9/1998	0.89	0.89	1.04	0.92	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	114.8814358
5592050	7/23/1999	0.89	0.89	1.04	0.92	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	114.8814358
5592050	5/21/2000	0.89	0.89	1.04	0.92	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	114.8814358
5592050	9/4/2000	0.89	0.89	1.04	0.92	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	114.8814358
5592050	8/7/2004	0.89	0.89	1.04	0.92	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	114.8814358
5592050	11/2/2005	0.89	0.89	1.04	0.92	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	114.8814358
5592050	10/21/2006	0.89	0.89	1.04	0.92	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	114.8814358
5592050	11/4/2015	0.89	0.89	1.04	0.92	7954	83.0792%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	114.8814358
5592050	11/17/1996	0.88	0.88	1.04	0.91	7965	83.1941%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.5906331
5592050	11/20/1996	0.88	0.88	1.04	0.91	7965	83.1941%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.5906331
5592050	12/13/2002	0.88	0.88	1.04	0.91	7965	83.1941%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.5906331

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	12/14/2002	0.88	0.88	1.04	0.91	7965	83.1941%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.5906331
5592050	8/27/2009	0.88	0.88	1.04	0.91	7965	83.1941%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.5906331
5592050	12/11/2013	0.88	0.88	1.04	0.91	7965	83.1941%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.5906331
5592050	8/3/2014	0.88	0.88	1.04	0.91	7965	83.1941%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.5906331
5592050	9/29/2014	0.88	0.88	1.04	0.91	7965	83.1941%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	113.5906331
5592050	11/8/1991	0.87	0.87	1.04	0.90	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	112.2998305
5592050	11/13/1991	0.87	0.87	1.04	0.90	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	112.2998305
5592050	8/30/1994	0.87	0.87	1.04	0.90	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	112.2998305
5592050	11/21/1996	0.87	0.87	1.04	0.90	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	112.2998305
5592050	7/19/1997	0.87	0.87	1.04	0.90	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	112.2998305
5592050	8/25/1997	0.87	0.87	1.04	0.90	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	112.2998305
5592050	10/28/1998	0.87	0.87	1.04	0.90	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	112.2998305
5592050	10/13/2002	0.87	0.87	1.04	0.90	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	112.2998305
5592050	8/20/2008	0.87	0.87	1.04	0.90	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	112.2998305
5592050	8/23/2011	0.87	0.87	1.04	0.90	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	112.2998305
5592050	12/10/2013	0.87	0.87	1.04	0.90	7973	83.2776%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	112.2998305
5592050	8/7/1990	0.86	0.86	1.04	0.89	7984	83.3925%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	111.0090279
5592050	10/24/1995	0.86	0.86	1.04	0.89	7984	83.3925%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	111.0090279
5592050	10/25/1995	0.86	0.86	1.04	0.89	7984	83.3925%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	111.0090279
5592050	10/22/2002	0.86	0.86	1.04	0.89	7984	83.3925%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	111.0090279
5592050	1/18/2003	0.86	0.86	1.04	0.89	7984	83.3925%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	111.0090279
5592050	7/23/2005	0.86	0.86	1.04	0.89	7984	83.3925%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	111.0090279
5592050	10/31/2005	0.86	0.86	1.04	0.89	7984	83.3925%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	111.0090279
5592050	12/11/2005	0.86	0.86	1.04	0.89	7984	83.3925%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	111.0090279
5592050	8/19/2008	0.86	0.86	1.04	0.89	7984	83.3925%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	111.0090279
5592050	8/17/1990	0.85	0.85	1.04	0.88	7993	83.4865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	109.7182252
5592050	7/14/1991	0.85	0.85	1.04	0.88	7993	83.4865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	109.7182252
5592050	11/12/1991	0.85	0.85	1.04	0.88	7993	83.4865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	109.7182252
5592050	11/6/1995	0.85	0.85	1.04	0.88	7993	83.4865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	109.7182252
5592050	10/6/2001	0.85	0.85	1.04	0.88	7993	83.4865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	109.7182252
5592050	9/24/2002	0.85	0.85	1.04	0.88	7993	83.4865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	109.7182252

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/1/2003	0.85	0.85	1.04	0.88	7993	83.4865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	109.7182252
5592050	8/31/2004	0.85	0.85	1.04	0.88	7993	83.4865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	109.7182252
5592050	8/15/2005	0.85	0.85	1.04	0.88	7993	83.4865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	109.7182252
5592050	12/7/2005	0.85	0.85	1.04	0.88	7993	83.4865%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	109.7182252
5592050	10/16/1992	0.84	0.84	1.04	0.87	8003	83.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	108.4274226
5592050	11/22/1996	0.84	0.84	1.04	0.87	8003	83.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	108.4274226
5592050	10/11/2002	0.84	0.84	1.04	0.87	8003	83.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	108.4274226
5592050	10/15/2002	0.84	0.84	1.04	0.87	8003	83.5910%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	108.4274226
5592050	8/8/1990	0.83	0.83	1.04	0.86	8007	83.6328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	107.1366199
5592050	9/1/1994	0.83	0.83	1.04	0.86	8007	83.6328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	107.1366199
5592050	11/11/1996	0.83	0.83	1.04	0.86	8007	83.6328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	107.1366199
5592050	12/8/2005	0.83	0.83	1.04	0.86	8007	83.6328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	107.1366199
5592050	12/10/2005	0.83	0.83	1.04	0.86	8007	83.6328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	107.1366199
5592050	10/13/2012	0.83	0.83	1.04	0.86	8007	83.6328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	107.1366199
5592050	11/2/2013	0.83	0.83	1.04	0.86	8007	83.6328%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	107.1366199
5592050	7/11/1991	0.82	0.82	1.04	0.85	8014	83.7059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.8458173
5592050	7/29/1999	0.82	0.82	1.04	0.85	8014	83.7059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.8458173
5592050	10/14/2002	0.82	0.82	1.04	0.85	8014	83.7059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.8458173
5592050	1/19/2003	0.82	0.82	1.04	0.85	8014	83.7059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.8458173
5592050	8/8/2004	0.82	0.82	1.04	0.85	8014	83.7059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.8458173
5592050	12/9/2005	0.82	0.82	1.04	0.85	8014	83.7059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.8458173
5592050	9/25/2007	0.82	0.82	1.04	0.85	8014	83.7059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.8458173
5592050	9/28/2014	0.82	0.82	1.04	0.85	8014	83.7059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	105.8458173
5592050	9/8/1994	0.81	0.81	1.04	0.84	8022	83.7894%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	104.5550146
5592050	8/13/1996	0.81	0.81	1.04	0.84	8022	83.7894%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	104.5550146
5592050	11/23/1996	0.81	0.81	1.04	0.84	8022	83.7894%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	104.5550146
5592050	8/6/2001	0.81	0.81	1.04	0.84	8022	83.7894%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	104.5550146
5592050	8/24/2001	0.81	0.81	1.04	0.84	8022	83.7894%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	104.5550146
5592050	11/29/2013	0.81	0.81	1.04	0.84	8022	83.7894%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	104.5550146
5592050	9/9/2015	0.81	0.81	1.04	0.84	8022	83.7894%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	104.5550146
5592050	8/11/1994	0.8	0.80	1.04	0.83	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103.264212

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	8/22/1994	0.8	0.80	1.04	0.83	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103.264212
5592050	10/9/1994	0.8	0.80	1.04	0.83	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103.264212
5592050	9/13/1997	0.8	0.80	1.04	0.83	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103.264212
5592050	11/5/1999	0.8	0.80	1.04	0.83	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103.264212
5592050	12/18/1999	0.8	0.80	1.04	0.83	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103.264212
5592050	9/12/2001	0.8	0.80	1.04	0.83	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103.264212
5592050	9/21/2001	0.8	0.80	1.04	0.83	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103.264212
5592050	8/18/2002	0.8	0.80	1.04	0.83	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103.264212
5592050	8/20/2002	0.8	0.80	1.04	0.83	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103.264212
5592050	1/20/2003	0.8	0.80	1.04	0.83	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103.264212
5592050	1/31/2003	0.8	0.80	1.04	0.83	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103.264212
5592050	10/7/2003	0.8	0.80	1.04	0.83	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103.264212
5592050	11/4/2005	0.8	0.80	1.04	0.83	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103.264212
5592050	9/16/2006	0.8	0.80	1.04	0.83	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103.264212
5592050	10/22/2006	0.8	0.80	1.04	0.83	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103.264212
5592050	8/20/2011	0.8	0.80	1.04	0.83	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103.264212
5592050	11/25/2013	0.8	0.80	1.04	0.83	8029	83.8625%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	103.264212
5592050	10/7/2002	0.79	0.79	1.04	0.82	8047	84.0506%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	101.9734093
5592050	8/22/2014	0.79	0.79	1.04	0.82	8047	84.0506%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	101.9734093
5592050	10/24/1991	0.78	0.78	1.04	0.81	8049	84.0714%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	100.6826067
5592050	6/30/1992	0.78	0.78	1.04	0.81	8049	84.0714%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	100.6826067
5592050	10/21/1994	0.78	0.78	1.04	0.81	8049	84.0714%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	100.6826067
5592050	7/20/1997	0.78	0.78	1.04	0.81	8049	84.0714%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	100.6826067
5592050	7/26/1997	0.78	0.78	1.04	0.81	8049	84.0714%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	100.6826067
5592050	10/17/2002	0.78	0.78	1.04	0.81	8049	84.0714%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	100.6826067
5592050	7/24/2005	0.78	0.78	1.04	0.81	8049	84.0714%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	100.6826067
5592050	8/30/2009	0.78	0.78	1.04	0.81	8049	84.0714%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	100.6826067
5592050	8/9/1990	0.77	0.77	1.04	0.80	8057	84.1550%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	99.39180401
5592050	8/29/1990	0.77	0.77	1.04	0.80	8057	84.1550%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	99.39180401
5592050	11/4/1995	0.77	0.77	1.04	0.80	8057	84.1550%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	99.39180401
5592050	11/3/2005	0.77	0.77	1.04	0.80	8057	84.1550%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	99.39180401

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	12/4/2013	0.77	0.77	1.04	0.80	8057	84.1550%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	99.39180401
5592050	10/3/1990	0.76	0.76	1.04	0.79	8062	84.2072%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	98.10100136
5592050	11/11/1991	0.76	0.76	1.04	0.79	8062	84.2072%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	98.10100136
5592050	8/15/1992	0.76	0.76	1.04	0.79	8062	84.2072%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	98.10100136
5592050	10/23/1995	0.76	0.76	1.04	0.79	8062	84.2072%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	98.10100136
5592050	8/14/1996	0.76	0.76	1.04	0.79	8062	84.2072%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	98.10100136
5592050	1/21/2003	0.76	0.76	1.04	0.79	8062	84.2072%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	98.10100136
5592050	8/11/1990	0.75	0.75	1.04	0.78	8068	84.2699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	96.81019871
5592050	11/9/1991	0.75	0.75	1.04	0.78	8068	84.2699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	96.81019871
5592050	11/10/1991	0.75	0.75	1.04	0.78	8068	84.2699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	96.81019871
5592050	10/22/1994	0.75	0.75	1.04	0.78	8068	84.2699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	96.81019871
5592050	10/23/2006	0.75	0.75	1.04	0.78	8068	84.2699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	96.81019871
5592050	6/26/2012	0.75	0.75	1.04	0.78	8068	84.2699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	96.81019871
5592050	8/16/2012	0.75	0.75	1.04	0.78	8068	84.2699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	96.81019871
5592050	11/28/2013	0.75	0.75	1.04	0.78	8068	84.2699%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	96.81019871
5592050	8/5/1991	0.74	0.74	1.04	0.77	8076	84.3535%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	95.51939606
5592050	9/13/1998	0.74	0.74	1.04	0.77	8076	84.3535%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	95.51939606
5592050	9/17/1998	0.74	0.74	1.04	0.77	8076	84.3535%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	95.51939606
5592050	9/25/2002	0.74	0.74	1.04	0.77	8076	84.3535%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	95.51939606
5592050	10/16/2002	0.74	0.74	1.04	0.77	8076	84.3535%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	95.51939606
5592050	10/18/2002	0.74	0.74	1.04	0.77	8076	84.3535%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	95.51939606
5592050	8/9/2004	0.74	0.74	1.04	0.77	8076	84.3535%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	95.51939606
5592050	8/28/2010	0.74	0.74	1.04	0.77	8076	84.3535%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	95.51939606
5592050	10/12/2012	0.74	0.74	1.04	0.77	8076	84.3535%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	95.51939606
5592050	10/23/1996	0.73	0.73	1.04	0.76	8085	84.4475%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	94.22859341
5592050	11/6/1997	0.73	0.73	1.04	0.76	8085	84.4475%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	94.22859341
5592050	1/10/2000	0.73	0.73	1.04	0.76	8085	84.4475%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	94.22859341
5592050	8/25/2004	0.73	0.73	1.04	0.76	8085	84.4475%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	94.22859341
5592050	9/6/2009	0.73	0.73	1.04	0.76	8085	84.4475%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	94.22859341
5592050	8/27/2010	0.73	0.73	1.04	0.76	8085	84.4475%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	94.22859341
5592050	10/17/2011	0.73	0.73	1.04	0.76	8085	84.4475%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	94.22859341

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	8/10/1990	0.72	0.72	1.04	0.75	8092	84.5206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	92.93779076
5592050	8/16/1992	0.72	0.72	1.04	0.75	8092	84.5206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	92.93779076
5592050	9/12/1998	0.72	0.72	1.04	0.75	8092	84.5206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	92.93779076
5592050	8/7/2001	0.72	0.72	1.04	0.75	8092	84.5206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	92.93779076
5592050	9/26/2007	0.72	0.72	1.04	0.75	8092	84.5206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	92.93779076
5592050	8/30/2010	0.72	0.72	1.04	0.75	8092	84.5206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	92.93779076
5592050	8/26/2012	0.72	0.72	1.04	0.75	8092	84.5206%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	92.93779076
5592050	10/23/1994	0.71	0.71	1.04	0.74	8099	84.5937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	91.64698811
5592050	9/10/1998	0.71	0.71	1.04	0.74	8099	84.5937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	91.64698811
5592050	7/24/1999	0.71	0.71	1.04	0.74	8099	84.5937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	91.64698811
5592050	2/9/2000	0.71	0.71	1.04	0.74	8099	84.5937%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	91.64698811
5592050	8/12/1994	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	8/23/1994	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	10/7/1995	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	11/5/1995	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	9/11/1998	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	9/14/1998	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	9/16/1998	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	10/27/1998	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	11/6/1999	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	11/24/1999	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	12/19/1999	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	1/3/2000	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	9/13/2001	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	10/7/2001	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	8/16/2002	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	9/26/2002	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	10/8/2002	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	1/22/2003	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	10/8/2003	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	8/10/2004	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/26/2005	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	7/28/2005	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	9/20/2006	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	9/27/2007	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	8/21/2011	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	9/20/2011	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	10/21/2011	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	11/3/2013	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	11/26/2013	0.7	0.70	1.04	0.73	8103	84.6355%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	90.35618546
5592050	10/23/1991	0.69	0.69	1.04	0.72	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.06538281
5592050	8/15/1996	0.69	0.69	1.04	0.72	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.06538281
5592050	11/12/1996	0.69	0.69	1.04	0.72	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.06538281
5592050	7/27/1997	0.69	0.69	1.04	0.72	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.06538281
5592050	10/7/1998	0.69	0.69	1.04	0.72	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.06538281
5592050	10/8/1998	0.69	0.69	1.04	0.72	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.06538281
5592050	1/6/2000	0.69	0.69	1.04	0.72	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.06538281
5592050	8/26/2001	0.69	0.69	1.04	0.72	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.06538281
5592050	8/7/2002	0.69	0.69	1.04	0.72	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.06538281
5592050	8/14/2005	0.69	0.69	1.04	0.72	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.06538281
5592050	9/17/2006	0.69	0.69	1.04	0.72	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.06538281
5592050	8/24/2011	0.69	0.69	1.04	0.72	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.06538281
5592050	11/13/2015	0.69	0.69	1.04	0.72	8132	84.9384%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	89.06538281
5592050	8/25/1990	0.68	0.68	1.04	0.70	8145	85.0742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	87.77458016
5592050	10/22/1996	0.68	0.68	1.04	0.70	8145	85.0742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	87.77458016
5592050	9/15/1998	0.68	0.68	1.04	0.70	8145	85.0742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	87.77458016
5592050	10/5/1998	0.68	0.68	1.04	0.70	8145	85.0742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	87.77458016
5592050	8/8/2001	0.68	0.68	1.04	0.70	8145	85.0742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	87.77458016
5592050	9/27/2002	0.68	0.68	1.04	0.70	8145	85.0742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	87.77458016
5592050	7/25/2005	0.68	0.68	1.04	0.70	8145	85.0742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	87.77458016
5592050	9/10/2012	0.68	0.68	1.04	0.70	8145	85.0742%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	87.77458016
5592050	7/25/1999	0.67	0.67	1.04	0.69	8153	85.1577%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	86.48377751

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/12/2000	0.67	0.67	1.04	0.69	8153	85.1577%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	86.48377751
5592050	8/10/2001	0.67	0.67	1.04	0.69	8153	85.1577%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	86.48377751
5592050	8/18/2001	0.67	0.67	1.04	0.69	8153	85.1577%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	86.48377751
5592050	9/28/2002	0.67	0.67	1.04	0.69	8153	85.1577%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	86.48377751
5592050	10/24/2006	0.67	0.67	1.04	0.69	8153	85.1577%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	86.48377751
5592050	10/14/2011	0.67	0.67	1.04	0.69	8153	85.1577%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	86.48377751
5592050	8/25/2013	0.67	0.67	1.04	0.69	8153	85.1577%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	86.48377751
5592050	8/28/2015	0.67	0.67	1.04	0.69	8153	85.1577%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	86.48377751
5592050	7/1/1992	0.66	0.66	1.04	0.68	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85.19297486
5592050	8/17/1992	0.66	0.66	1.04	0.68	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85.19297486
5592050	9/2/1994	0.66	0.66	1.04	0.68	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85.19297486
5592050	9/9/1994	0.66	0.66	1.04	0.68	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85.19297486
5592050	11/5/1996	0.66	0.66	1.04	0.68	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85.19297486
5592050	9/25/1998	0.66	0.66	1.04	0.68	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85.19297486
5592050	1/9/2000	0.66	0.66	1.04	0.68	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85.19297486
5592050	8/9/2001	0.66	0.66	1.04	0.68	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85.19297486
5592050	8/23/2001	0.66	0.66	1.04	0.68	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85.19297486
5592050	9/29/2002	0.66	0.66	1.04	0.68	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85.19297486
5592050	10/10/2002	0.66	0.66	1.04	0.68	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85.19297486
5592050	8/31/2009	0.66	0.66	1.04	0.68	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85.19297486
5592050	10/11/2012	0.66	0.66	1.04	0.68	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85.19297486
5592050	12/9/2013	0.66	0.66	1.04	0.68	8162	85.2517%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	85.19297486
5592050	9/10/1991	0.65	0.65	1.04	0.67	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	83.90217221
5592050	10/19/1991	0.65	0.65	1.04	0.67	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	83.90217221
5592050	7/2/1992	0.65	0.65	1.04	0.67	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	83.90217221
5592050	10/14/1995	0.65	0.65	1.04	0.67	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	83.90217221
5592050	11/13/1996	0.65	0.65	1.04	0.67	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	83.90217221
5592050	8/11/1997	0.65	0.65	1.04	0.67	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	83.90217221
5592050	7/30/1999	0.65	0.65	1.04	0.67	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	83.90217221
5592050	12/5/1999	0.65	0.65	1.04	0.67	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	83.90217221
5592050	8/19/2001	0.65	0.65	1.04	0.67	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	83.90217221

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	9/22/2001	0.65	0.65	1.04	0.67	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	83.90217221
5592050	9/30/2002	0.65	0.65	1.04	0.67	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	83.90217221
5592050	1/23/2003	0.65	0.65	1.04	0.67	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	83.90217221
5592050	10/9/2003	0.65	0.65	1.04	0.67	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	83.90217221
5592050	8/21/2004	0.65	0.65	1.04	0.67	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	83.90217221
5592050	8/24/2004	0.65	0.65	1.04	0.67	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	83.90217221
5592050	8/22/2011	0.65	0.65	1.04	0.67	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	83.90217221
5592050	9/25/2012	0.65	0.65	1.04	0.67	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	83.90217221
5592050	11/4/2013	0.65	0.65	1.04	0.67	8176	85.3980%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	83.90217221
5592050	11/14/1996	0.64	0.64	1.04	0.66	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	82.61136956
5592050	11/15/1996	0.64	0.64	1.04	0.66	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	82.61136956
5592050	9/21/1998	0.64	0.64	1.04	0.66	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	82.61136956
5592050	9/29/1998	0.64	0.64	1.04	0.66	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	82.61136956
5592050	8/13/1999	0.64	0.64	1.04	0.66	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	82.61136956
5592050	2/8/2000	0.64	0.64	1.04	0.66	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	82.61136956
5592050	8/11/2001	0.64	0.64	1.04	0.66	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	82.61136956
5592050	8/5/2003	0.64	0.64	1.04	0.66	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	82.61136956
5592050	8/11/2004	0.64	0.64	1.04	0.66	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	82.61136956
5592050	8/12/2004	0.64	0.64	1.04	0.66	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	82.61136956
5592050	9/1/2004	0.64	0.64	1.04	0.66	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	82.61136956
5592050	9/16/2005	0.64	0.64	1.04	0.66	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	82.61136956
5592050	9/7/2009	0.64	0.64	1.04	0.66	8194	85.5860%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	82.61136956
5592050	9/19/1990	0.63	0.63	1.04	0.65	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.32056691
5592050	7/7/1991	0.63	0.63	1.04	0.65	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.32056691
5592050	10/8/1994	0.63	0.63	1.04	0.65	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.32056691
5592050	10/29/1996	0.63	0.63	1.04	0.65	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.32056691
5592050	10/30/1996	0.63	0.63	1.04	0.65	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.32056691
5592050	11/16/1996	0.63	0.63	1.04	0.65	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.32056691
5592050	7/26/1999	0.63	0.63	1.04	0.65	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.32056691
5592050	8/12/2001	0.63	0.63	1.04	0.65	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.32056691
5592050	8/25/2001	0.63	0.63	1.04	0.65	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.32056691

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	10/1/2002	0.63	0.63	1.04	0.65	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.32056691
5592050	1/30/2003	0.63	0.63	1.04	0.65	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.32056691
5592050	10/12/2004	0.63	0.63	1.04	0.65	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.32056691
5592050	8/6/2005	0.63	0.63	1.04	0.65	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.32056691
5592050	8/7/2005	0.63	0.63	1.04	0.65	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.32056691
5592050	9/25/2011	0.63	0.63	1.04	0.65	8207	85.7217%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	81.32056691
5592050	10/10/1994	0.62	0.62	1.04	0.64	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80.02976426
5592050	10/8/1995	0.62	0.62	1.04	0.64	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80.02976426
5592050	8/16/1996	0.62	0.62	1.04	0.64	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80.02976426
5592050	10/26/1996	0.62	0.62	1.04	0.64	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80.02976426
5592050	9/22/1998	0.62	0.62	1.04	0.64	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80.02976426
5592050	9/30/1998	0.62	0.62	1.04	0.64	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80.02976426
5592050	10/3/2002	0.62	0.62	1.04	0.64	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80.02976426
5592050	10/4/2002	0.62	0.62	1.04	0.64	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80.02976426
5592050	10/9/2002	0.62	0.62	1.04	0.64	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80.02976426
5592050	10/25/2006	0.62	0.62	1.04	0.64	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80.02976426
5592050	7/30/2014	0.62	0.62	1.04	0.64	8222	85.8784%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	80.02976426
5592050	11/3/1996	0.61	0.61	1.04	0.63	8233	85.9933%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78.73896161
5592050	11/4/1996	0.61	0.61	1.04	0.63	8233	85.9933%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78.73896161
5592050	1/24/2003	0.61	0.61	1.04	0.63	8233	85.9933%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78.73896161
5592050	8/23/2004	0.61	0.61	1.04	0.63	8233	85.9933%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78.73896161
5592050	8/16/2005	0.61	0.61	1.04	0.63	8233	85.9933%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78.73896161
5592050	9/15/2005	0.61	0.61	1.04	0.63	8233	85.9933%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78.73896161
5592050	10/10/2011	0.61	0.61	1.04	0.63	8233	85.9933%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	78.73896161
5592050	8/26/1990	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	8/18/1992	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	8/13/1994	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	8/24/1994	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	10/9/1995	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	8/18/1996	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	7/28/1997	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/28/1997	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	9/24/1998	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	8/8/1999	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	8/24/1999	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	11/7/1999	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	12/20/1999	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	9/14/2001	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	10/8/2001	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	8/8/2002	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	8/14/2002	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	8/17/2002	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	8/21/2002	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	10/2/2002	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	8/13/2004	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	7/29/2005	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	11/5/2013	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	11/17/2013	0.6	0.60	1.04	0.62	8240	86.0664%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	77.44815897
5592050	9/21/1992	0.59	0.59	1.04	0.61	8264	86.3171%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76.15735632
5592050	8/17/1996	0.59	0.59	1.04	0.61	8264	86.3171%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76.15735632
5592050	2/13/2000	0.59	0.59	1.04	0.61	8264	86.3171%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76.15735632
5592050	8/13/2001	0.59	0.59	1.04	0.61	8264	86.3171%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76.15735632
5592050	8/5/2005	0.59	0.59	1.04	0.61	8264	86.3171%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76.15735632
5592050	10/22/2011	0.59	0.59	1.04	0.61	8264	86.3171%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	76.15735632
5592050	8/27/1990	0.58	0.58	1.04	0.60	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74.86655367
5592050	8/25/1994	0.58	0.58	1.04	0.60	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74.86655367
5592050	11/2/1996	0.58	0.58	1.04	0.60	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74.86655367
5592050	8/16/2001	0.58	0.58	1.04	0.60	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74.86655367
5592050	1/29/2003	0.58	0.58	1.04	0.60	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74.86655367
5592050	8/15/2004	0.58	0.58	1.04	0.60	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74.86655367
5592050	7/30/2005	0.58	0.58	1.04	0.60	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74.86655367
5592050	9/17/2005	0.58	0.58	1.04	0.60	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74.86655367

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	10/22/2005	0.58	0.58	1.04	0.60	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74.86655367
5592050	9/28/2007	0.58	0.58	1.04	0.60	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74.86655367
5592050	9/1/2009	0.58	0.58	1.04	0.60	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74.86655367
5592050	8/29/2010	0.58	0.58	1.04	0.60	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74.86655367
5592050	10/12/2011	0.58	0.58	1.04	0.60	8270	86.3798%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	74.86655367
5592050	10/5/1990	0.57	0.57	1.04	0.59	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.57575102
5592050	10/27/1996	0.57	0.57	1.04	0.59	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.57575102
5592050	10/21/1998	0.57	0.57	1.04	0.59	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.57575102
5592050	1/8/2000	0.57	0.57	1.04	0.59	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.57575102
5592050	1/11/2000	0.57	0.57	1.04	0.59	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.57575102
5592050	8/27/2001	0.57	0.57	1.04	0.59	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.57575102
5592050	9/2/2004	0.57	0.57	1.04	0.59	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.57575102
5592050	10/10/2004	0.57	0.57	1.04	0.59	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.57575102
5592050	8/1/2005	0.57	0.57	1.04	0.59	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.57575102
5592050	10/2/2009	0.57	0.57	1.04	0.59	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.57575102
5592050	10/15/2011	0.57	0.57	1.04	0.59	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.57575102
5592050	9/7/2014	0.57	0.57	1.04	0.59	8283	86.5156%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	73.57575102
5592050	7/15/1991	0.56	0.56	1.04	0.58	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.28494837
5592050	9/23/1994	0.56	0.56	1.04	0.58	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.28494837
5592050	11/1/1996	0.56	0.56	1.04	0.58	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.28494837
5592050	9/18/1998	0.56	0.56	1.04	0.58	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.28494837
5592050	9/20/1998	0.56	0.56	1.04	0.58	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.28494837
5592050	9/28/1998	0.56	0.56	1.04	0.58	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.28494837
5592050	10/23/1998	0.56	0.56	1.04	0.58	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.28494837
5592050	1/7/2000	0.56	0.56	1.04	0.58	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.28494837
5592050	2/7/2000	0.56	0.56	1.04	0.58	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.28494837
5592050	1/25/2003	0.56	0.56	1.04	0.58	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.28494837
5592050	1/28/2003	0.56	0.56	1.04	0.58	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.28494837
5592050	8/14/2004	0.56	0.56	1.04	0.58	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.28494837
5592050	8/16/2004	0.56	0.56	1.04	0.58	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.28494837
5592050	8/17/2004	0.56	0.56	1.04	0.58	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.28494837

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	8/31/2010	0.56	0.56	1.04	0.58	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.28494837
5592050	9/28/2011	0.56	0.56	1.04	0.58	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.28494837
5592050	10/16/2011	0.56	0.56	1.04	0.58	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.28494837
5592050	11/6/2013	0.56	0.56	1.04	0.58	8295	86.6409%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	72.28494837
5592050	8/26/1994	0.55	0.55	1.04	0.57	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.99414572
5592050	7/29/1997	0.55	0.55	1.04	0.57	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.99414572
5592050	8/12/1997	0.55	0.55	1.04	0.57	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.99414572
5592050	11/8/1999	0.55	0.55	1.04	0.57	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.99414572
5592050	11/25/1999	0.55	0.55	1.04	0.57	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.99414572
5592050	12/21/1999	0.55	0.55	1.04	0.57	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.99414572
5592050	8/15/2001	0.55	0.55	1.04	0.57	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.99414572
5592050	8/17/2001	0.55	0.55	1.04	0.57	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.99414572
5592050	8/20/2001	0.55	0.55	1.04	0.57	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.99414572
5592050	9/23/2001	0.55	0.55	1.04	0.57	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.99414572
5592050	10/9/2001	0.55	0.55	1.04	0.57	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.99414572
5592050	8/9/2002	0.55	0.55	1.04	0.57	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.99414572
5592050	8/18/2004	0.55	0.55	1.04	0.57	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.99414572
5592050	9/29/2005	0.55	0.55	1.04	0.57	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.99414572
5592050	9/23/2006	0.55	0.55	1.04	0.57	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.99414572
5592050	9/29/2007	0.55	0.55	1.04	0.57	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.99414572
5592050	9/8/2009	0.55	0.55	1.04	0.57	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.99414572
5592050	9/17/2011	0.55	0.55	1.04	0.57	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.99414572
5592050	9/19/2011	0.55	0.55	1.04	0.57	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.99414572
5592050	11/27/2013	0.55	0.55	1.04	0.57	8313	86.8289%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	70.99414572
5592050	10/22/1991	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	8/27/1994	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	9/3/1994	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	8/19/1996	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	10/31/1996	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	9/23/1998	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	10/22/1998	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/31/1999	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	9/5/2000	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	9/9/2000	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	8/14/2001	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	10/6/2002	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	1/27/2003	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	8/22/2004	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	10/9/2004	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	7/31/2005	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	8/2/2005	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	8/8/2005	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	8/17/2005	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	8/19/2005	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	10/26/2005	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	10/27/2005	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	10/28/2005	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	10/30/2005	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	8/25/2012	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	8/29/2015	0.54	0.54	1.04	0.56	8333	87.0378%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	69.70334307
5592050	8/9/1991	0.53	0.53	1.04	0.55	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68.41254042
5592050	10/15/1995	0.53	0.53	1.04	0.55	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68.41254042
5592050	11/7/1997	0.53	0.53	1.04	0.55	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68.41254042
5592050	10/26/1998	0.53	0.53	1.04	0.55	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68.41254042
5592050	1/12/2000	0.53	0.53	1.04	0.55	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68.41254042
5592050	8/3/2005	0.53	0.53	1.04	0.55	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68.41254042
5592050	8/9/2005	0.53	0.53	1.04	0.55	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68.41254042
5592050	9/30/2007	0.53	0.53	1.04	0.55	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68.41254042
5592050	9/5/2009	0.53	0.53	1.04	0.55	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68.41254042
5592050	8/27/2011	0.53	0.53	1.04	0.55	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68.41254042
5592050	9/27/2011	0.53	0.53	1.04	0.55	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68.41254042
5592050	6/27/2012	0.53	0.53	1.04	0.55	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68.41254042

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	8/24/2012	0.53	0.53	1.04	0.55	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68.41254042
5592050	8/28/2012	0.53	0.53	1.04	0.55	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68.41254042
5592050	9/8/2015	0.53	0.53	1.04	0.55	8359	87.3094%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	68.41254042
5592050	10/4/1991	0.52	0.52	1.04	0.54	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67.12173777
5592050	9/10/1994	0.52	0.52	1.04	0.54	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67.12173777
5592050	9/25/1994	0.52	0.52	1.04	0.54	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67.12173777
5592050	10/10/1995	0.52	0.52	1.04	0.54	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67.12173777
5592050	10/24/1998	0.52	0.52	1.04	0.54	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67.12173777
5592050	8/7/1999	0.52	0.52	1.04	0.54	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67.12173777
5592050	8/22/2002	0.52	0.52	1.04	0.54	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67.12173777
5592050	1/26/2003	0.52	0.52	1.04	0.54	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67.12173777
5592050	9/3/2004	0.52	0.52	1.04	0.54	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67.12173777
5592050	10/11/2004	0.52	0.52	1.04	0.54	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67.12173777
5592050	8/4/2005	0.52	0.52	1.04	0.54	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67.12173777
5592050	8/13/2005	0.52	0.52	1.04	0.54	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67.12173777
5592050	8/18/2005	0.52	0.52	1.04	0.54	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67.12173777
5592050	9/2/2009	0.52	0.52	1.04	0.54	8374	87.4661%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	67.12173777
5592050	9/4/1994	0.51	0.51	1.04	0.53	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.83093512
5592050	9/26/1996	0.51	0.51	1.04	0.53	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.83093512
5592050	9/26/1998	0.51	0.51	1.04	0.53	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.83093512
5592050	10/9/1998	0.51	0.51	1.04	0.53	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.83093512
5592050	8/20/1999	0.51	0.51	1.04	0.53	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.83093512
5592050	12/6/1999	0.51	0.51	1.04	0.53	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.83093512
5592050	12/10/1999	0.51	0.51	1.04	0.53	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.83093512
5592050	8/27/2005	0.51	0.51	1.04	0.53	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.83093512
5592050	9/11/2005	0.51	0.51	1.04	0.53	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.83093512
5592050	9/14/2005	0.51	0.51	1.04	0.53	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.83093512
5592050	10/23/2005	0.51	0.51	1.04	0.53	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.83093512
5592050	10/29/2005	0.51	0.51	1.04	0.53	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.83093512
5592050	11/1/2011	0.51	0.51	1.04	0.53	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.83093512
5592050	11/7/2013	0.51	0.51	1.04	0.53	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.83093512

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	12/5/2013	0.51	0.51	1.04	0.53	8388	87.6123%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	65.83093512
5592050	1/2/1990	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	10/18/1996	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	7/30/1997	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	8/10/1997	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	8/15/1997	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	9/14/1997	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	9/27/1998	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	11/1/1999	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	11/9/1999	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	12/22/1999	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	2/14/2000	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	8/21/2001	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	8/31/2001	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	9/15/2001	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	8/10/2002	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	9/18/2002	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	8/28/2005	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	10/25/2005	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	9/22/2006	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	10/3/2007	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	10/1/2009	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	8/28/2011	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	9/10/2011	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	9/18/2011	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	10/11/2011	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	10/23/2011	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	7/7/2012	0.5	0.50	1.04	0.52	8403	87.7690%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	64.54013247
5592050	10/20/1991	0.49	0.49	1.04	0.51	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.24932982
5592050	9/27/1996	0.49	0.49	1.04	0.51	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.24932982
5592050	10/24/1996	0.49	0.49	1.04	0.51	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.24932982

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	10/28/1996	0.49	0.49	1.04	0.51	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.24932982
5592050	12/12/1999	0.49	0.49	1.04	0.51	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.24932982
5592050	1/19/2000	0.49	0.49	1.04	0.51	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.24932982
5592050	8/28/2001	0.49	0.49	1.04	0.51	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.24932982
5592050	8/19/2004	0.49	0.49	1.04	0.51	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.24932982
5592050	8/21/2005	0.49	0.49	1.04	0.51	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.24932982
5592050	9/10/2005	0.49	0.49	1.04	0.51	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.24932982
5592050	9/12/2005	0.49	0.49	1.04	0.51	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.24932982
5592050	9/20/2005	0.49	0.49	1.04	0.51	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.24932982
5592050	10/24/2005	0.49	0.49	1.04	0.51	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.24932982
5592050	9/24/2006	0.49	0.49	1.04	0.51	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.24932982
5592050	9/3/2009	0.49	0.49	1.04	0.51	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.24932982
5592050	8/26/2011	0.49	0.49	1.04	0.51	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.24932982
5592050	9/21/2011	0.49	0.49	1.04	0.51	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.24932982
5592050	10/31/2011	0.49	0.49	1.04	0.51	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.24932982
5592050	12/6/2013	0.49	0.49	1.04	0.51	8430	88.0510%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	63.24932982
5592050	7/29/1991	0.48	0.48	1.04	0.50	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61.95852717
5592050	8/19/1992	0.48	0.48	1.04	0.50	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61.95852717
5592050	9/11/1994	0.48	0.48	1.04	0.50	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61.95852717
5592050	10/11/1994	0.48	0.48	1.04	0.50	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61.95852717
5592050	10/1/1998	0.48	0.48	1.04	0.50	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61.95852717
5592050	8/1/1999	0.48	0.48	1.04	0.50	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61.95852717
5592050	9/6/2000	0.48	0.48	1.04	0.50	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61.95852717
5592050	8/22/2001	0.48	0.48	1.04	0.50	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61.95852717
5592050	8/11/2002	0.48	0.48	1.04	0.50	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61.95852717
5592050	8/23/2002	0.48	0.48	1.04	0.50	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61.95852717
5592050	8/10/2005	0.48	0.48	1.04	0.50	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61.95852717
5592050	9/13/2005	0.48	0.48	1.04	0.50	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61.95852717
5592050	8/29/2011	0.48	0.48	1.04	0.50	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61.95852717
5592050	7/4/2012	0.48	0.48	1.04	0.50	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61.95852717
5592050	11/8/2013	0.48	0.48	1.04	0.50	8449	88.2494%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	61.95852717

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	10/21/1991	0.47	0.47	1.04	0.49	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.66772452
5592050	9/26/1994	0.47	0.47	1.04	0.49	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.66772452
5592050	10/14/1994	0.47	0.47	1.04	0.49	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.66772452
5592050	7/31/1997	0.47	0.47	1.04	0.49	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.66772452
5592050	8/26/1997	0.47	0.47	1.04	0.49	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.66772452
5592050	8/9/1999	0.47	0.47	1.04	0.49	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.66772452
5592050	11/26/1999	0.47	0.47	1.04	0.49	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.66772452
5592050	9/4/2004	0.47	0.47	1.04	0.49	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.66772452
5592050	8/20/2005	0.47	0.47	1.04	0.49	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.66772452
5592050	9/18/2005	0.47	0.47	1.04	0.49	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.66772452
5592050	9/9/2009	0.47	0.47	1.04	0.49	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.66772452
5592050	8/2/2012	0.47	0.47	1.04	0.49	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.66772452
5592050	8/27/2014	0.47	0.47	1.04	0.49	8464	88.4061%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	60.66772452
5592050	8/20/1992	0.46	0.46	1.04	0.48	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.37692187
5592050	10/15/1994	0.46	0.46	1.04	0.48	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.37692187
5592050	10/16/1994	0.46	0.46	1.04	0.48	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.37692187
5592050	10/16/1995	0.46	0.46	1.04	0.48	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.37692187
5592050	10/25/1996	0.46	0.46	1.04	0.48	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.37692187
5592050	11/14/1997	0.46	0.46	1.04	0.48	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.37692187
5592050	10/4/1998	0.46	0.46	1.04	0.48	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.37692187
5592050	10/18/1998	0.46	0.46	1.04	0.48	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.37692187
5592050	10/25/1998	0.46	0.46	1.04	0.48	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.37692187
5592050	1/18/2000	0.46	0.46	1.04	0.48	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.37692187
5592050	9/5/2004	0.46	0.46	1.04	0.48	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.37692187
5592050	8/11/2005	0.46	0.46	1.04	0.48	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.37692187
5592050	8/22/2005	0.46	0.46	1.04	0.48	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.37692187
5592050	8/26/2005	0.46	0.46	1.04	0.48	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.37692187
5592050	9/4/2009	0.46	0.46	1.04	0.48	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.37692187
5592050	8/25/2011	0.46	0.46	1.04	0.48	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.37692187
5592050	7/3/2012	0.46	0.46	1.04	0.48	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.37692187
5592050	10/23/2013	0.46	0.46	1.04	0.48	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.37692187

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/9/2013	0.46	0.46	1.04	0.48	8477	88.5419%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	59.37692187
5592050	8/28/1990	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	9/25/1990	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	10/2/1990	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	9/26/1992	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	9/27/1994	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	10/7/1994	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	10/12/1994	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	10/13/1994	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	10/11/1995	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	8/1/1997	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	8/13/1997	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	8/16/1997	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	11/1/1997	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	11/26/1997	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	11/29/1997	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	9/19/1998	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	11/10/1999	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	11/27/1999	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	12/23/1999	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	1/17/2000	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	2/6/2000	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	8/29/2001	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	9/1/2001	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	9/16/2001	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	9/24/2001	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	8/12/2002	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	8/13/2002	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	10/5/2002	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	9/6/2004	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	8/12/2005	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	8/29/2005	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	9/25/2005	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	9/23/2011	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	11/10/2013	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	11/16/2013	0.45	0.45	1.04	0.47	8496	88.7403%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	58.08611922
5592050	9/26/1990	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	10/18/1991	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	9/28/1994	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	8/20/1996	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	10/19/1998	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	10/20/1998	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	12/13/1999	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	8/30/2001	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	9/2/2001	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	9/3/2001	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	8/24/2002	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	8/6/2003	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	8/30/2005	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	9/9/2005	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	9/30/2006	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	9/10/2009	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	9/11/2011	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	9/24/2011	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	10/4/2011	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	10/5/2011	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	6/30/2012	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	8/17/2012	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	8/23/2012	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	11/11/2013	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	11/12/2013	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657
5592050	12/8/2013	0.44	0.44	1.04	0.46	8531	89.1059%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	56.79531657

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	9/12/1994	0.43	0.43	1.04	0.45	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.50451393
5592050	10/21/1996	0.43	0.43	1.04	0.45	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.50451393
5592050	8/2/1997	0.43	0.43	1.04	0.45	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.50451393
5592050	11/21/1997	0.43	0.43	1.04	0.45	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.50451393
5592050	10/10/1998	0.43	0.43	1.04	0.45	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.50451393
5592050	8/21/1999	0.43	0.43	1.04	0.45	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.50451393
5592050	11/28/1999	0.43	0.43	1.04	0.45	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.50451393
5592050	12/24/1999	0.43	0.43	1.04	0.45	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.50451393
5592050	8/19/2003	0.43	0.43	1.04	0.45	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.50451393
5592050	8/31/2005	0.43	0.43	1.04	0.45	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.50451393
5592050	9/1/2005	0.43	0.43	1.04	0.45	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.50451393
5592050	9/7/2005	0.43	0.43	1.04	0.45	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.50451393
5592050	9/8/2005	0.43	0.43	1.04	0.45	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.50451393
5592050	9/29/2006	0.43	0.43	1.04	0.45	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.50451393
5592050	9/11/2009	0.43	0.43	1.04	0.45	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.50451393
5592050	11/2/2011	0.43	0.43	1.04	0.45	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.50451393
5592050	7/2/2012	0.43	0.43	1.04	0.45	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.50451393
5592050	7/5/2012	0.43	0.43	1.04	0.45	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.50451393
5592050	11/13/2013	0.43	0.43	1.04	0.45	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.50451393
5592050	8/30/2015	0.43	0.43	1.04	0.45	8557	89.3775%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	55.50451393
5592050	8/31/1990	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	10/7/1990	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	7/8/1991	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	9/13/1994	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	10/17/1996	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	10/2/1998	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	10/8/1999	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	10/15/1999	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	1/13/2000	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	1/15/2000	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	2/15/2000	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	9/4/2001	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	9/17/2001	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	9/25/2001	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	8/23/2005	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	8/25/2005	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	9/2/2005	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	9/5/2005	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	9/21/2006	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	9/25/2006	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	10/24/2011	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	10/27/2011	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	9/20/2013	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	10/22/2013	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	10/24/2013	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	11/14/2013	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	11/15/2013	0.42	0.42	1.04	0.44	8577	89.5864%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	54.21371128
5592050	10/1/1990	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	10/17/1991	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	8/21/1992	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	8/22/1992	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	8/27/1992	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	10/20/1992	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	10/6/1994	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	11/15/1997	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	10/17/1998	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	8/10/1999	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	11/29/1999	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	12/4/1999	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	12/7/1999	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	12/9/1999	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	9/7/2000	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	9/8/2000	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	9/7/2004	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	9/8/2004	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	9/3/2005	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	9/28/2006	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	10/4/2007	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	10/22/2007	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	9/22/2009	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	10/3/2011	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	10/9/2011	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	9/11/2012	0.41	0.41	1.04	0.43	8604	89.8684%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	52.92290863
5592050	7/10/1991	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	10/30/1992	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	10/12/1995	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	10/17/1995	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	9/3/1996	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	10/20/1996	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	8/3/1997	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	8/14/1997	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	10/3/1998	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	8/2/1999	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	8/6/1999	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	8/11/1999	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	8/12/1999	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	11/11/1999	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	11/30/1999	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	12/1/1999	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	12/11/1999	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	1/14/2000	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	1/16/2000	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	1/20/2000	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	2/5/2000	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	8/25/2002	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	9/15/2002	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	9/9/2004	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	8/24/2005	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	9/4/2005	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	9/6/2005	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	10/1/2007	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	9/12/2009	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	9/25/2009	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	8/30/2011	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	9/1/2011	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	10/6/2011	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	10/28/2011	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	10/30/2011	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	7/6/2012	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	10/25/2013	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	10/30/2013	0.4	0.40	1.04	0.41	8630	90.1400%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	51.63210598
5592050	7/16/1991	0.39	0.39	1.04	0.40	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.34130333
5592050	10/16/1991	0.39	0.39	1.04	0.40	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.34130333
5592050	9/10/1992	0.39	0.39	1.04	0.40	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.34130333
5592050	9/22/1992	0.39	0.39	1.04	0.40	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.34130333
5592050	9/24/1994	0.39	0.39	1.04	0.40	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.34130333
5592050	8/21/1996	0.39	0.39	1.04	0.40	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.34130333
5592050	8/19/1999	0.39	0.39	1.04	0.40	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.34130333
5592050	10/16/1999	0.39	0.39	1.04	0.40	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.34130333
5592050	12/3/1999	0.39	0.39	1.04	0.40	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.34130333
5592050	12/25/1999	0.39	0.39	1.04	0.40	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.34130333
5592050	2/3/2000	0.39	0.39	1.04	0.40	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.34130333
5592050	2/16/2000	0.39	0.39	1.04	0.40	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.34130333
5592050	9/5/2001	0.39	0.39	1.04	0.40	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.34130333

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	9/19/2005	0.39	0.39	1.04	0.40	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.34130333
5592050	10/12/2005	0.39	0.39	1.04	0.40	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.34130333
5592050	10/1/2006	0.39	0.39	1.04	0.40	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.34130333
5592050	9/26/2009	0.39	0.39	1.04	0.40	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.34130333
5592050	8/31/2011	0.39	0.39	1.04	0.40	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.34130333
5592050	9/8/2011	0.39	0.39	1.04	0.40	8668	90.5369%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	50.34130333
5592050	9/30/1990	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	10/14/1991	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	9/14/1994	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	10/13/1995	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	10/19/1995	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	8/4/1997	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	12/2/1999	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	12/8/1999	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	2/17/2000	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	9/6/2001	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	9/7/2001	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	9/26/2001	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	8/26/2002	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	10/13/2005	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	9/21/2009	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	9/23/2009	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	9/27/2009	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	10/3/2009	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	9/22/2011	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	9/29/2011	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	10/7/2011	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	10/26/2011	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	6/28/2012	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	7/16/2012	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	7/23/2012	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	10/19/2013	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	10/26/2013	0.38	0.38	1.04	0.39	8687	90.7353%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	49.05050068
5592050	9/22/1990	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	9/28/1990	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	9/29/1990	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	9/29/1994	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	10/18/1995	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	11/8/1997	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	8/3/1999	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	12/26/1999	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	9/21/2005	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	9/26/2006	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	10/21/2007	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	9/13/2009	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	9/20/2009	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	9/24/2009	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	10/5/2009	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	9/3/2011	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	10/2/2011	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	10/8/2011	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	7/1/2012	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	10/20/2013	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	10/21/2013	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	11/12/2015	0.37	0.37	1.04	0.38	8714	91.0173%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	47.75969803
5592050	9/21/1990	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	9/24/1990	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	8/23/1992	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	8/28/1992	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	10/2/1994	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	10/19/1996	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	8/5/1997	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/13/1997	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	10/11/1998	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	8/4/1999	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	9/27/2001	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	9/10/2004	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	10/18/2005	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	9/27/2006	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	9/14/2009	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	9/15/2009	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	10/4/2009	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	9/12/2011	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	9/30/2011	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	10/1/2011	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	10/29/2011	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	6/29/2012	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	7/18/2012	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	10/27/2013	0.36	0.36	1.04	0.37	8736	91.2471%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	46.46889538
5592050	10/13/1991	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	8/24/1992	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	9/25/1992	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	10/21/1992	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	9/16/1994	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	10/1/1994	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	10/5/1994	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	8/22/1996	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	8/9/1997	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	10/26/1997	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	11/5/1997	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	11/16/1997	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	11/22/1997	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	11/12/1999	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	11/23/1999	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	12/27/1999	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	2/4/2000	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	8/27/2002	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	9/11/2004	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	9/26/2005	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	9/30/2009	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	10/25/2011	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	7/13/2012	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	7/17/2012	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	7/22/2012	0.35	0.35	1.04	0.36	8760	91.4978%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	45.17809273
5592050	9/27/1990	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	7/9/1991	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	10/15/1991	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	9/15/1994	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	9/22/1994	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	9/30/1994	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	10/3/1994	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	10/4/1994	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	8/6/1997	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	11/9/1997	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	8/5/1999	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	8/23/1999	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	12/28/1999	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	9/8/2001	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	9/28/2001	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	10/14/2005	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	10/16/2006	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	9/16/2009	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	9/28/2009	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	9/2/2011	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	7/8/2012	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	8/22/2012	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	10/28/2013	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	8/31/2015	0.34	0.34	1.04	0.35	8785	91.7589%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	43.88729008
5592050	9/23/1990	0.33	0.33	1.04	0.34	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.59648743
5592050	8/26/1992	0.33	0.33	1.04	0.34	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.59648743
5592050	9/17/1994	0.33	0.33	1.04	0.34	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.59648743
5592050	9/18/1994	0.33	0.33	1.04	0.34	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.59648743
5592050	11/10/1997	0.33	0.33	1.04	0.34	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.59648743
5592050	12/29/1999	0.33	0.33	1.04	0.34	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.59648743
5592050	1/21/2000	0.33	0.33	1.04	0.34	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.59648743
5592050	8/28/2002	0.33	0.33	1.04	0.34	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.59648743
5592050	9/12/2004	0.33	0.33	1.04	0.34	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.59648743
5592050	10/15/2005	0.33	0.33	1.04	0.34	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.59648743
5592050	10/19/2005	0.33	0.33	1.04	0.34	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.59648743
5592050	9/13/2011	0.33	0.33	1.04	0.34	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.59648743
5592050	11/11/2015	0.33	0.33	1.04	0.34	8809	92.0096%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	42.59648743
5592050	9/18/1990	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	10/6/1991	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	10/22/1992	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	9/20/1994	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	9/21/1994	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	9/16/1996	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	8/7/1997	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	8/31/1997	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	9/29/1999	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	10/3/1999	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	10/21/1999	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	11/13/1999	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	12/30/1999	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	9/29/2001	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	10/9/2005	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	10/16/2005	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	10/17/2005	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	9/17/2009	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	9/18/2009	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	9/29/2009	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	9/4/2011	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	8/21/2012	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	9/13/2012	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	10/8/2013	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	10/29/2013	0.32	0.32	1.04	0.33	8822	92.1454%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	41.30568478
5592050	8/25/1992	0.31	0.31	1.04	0.32	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.01488213
5592050	9/23/1992	0.31	0.31	1.04	0.32	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.01488213
5592050	8/23/1996	0.31	0.31	1.04	0.32	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.01488213
5592050	11/11/1997	0.31	0.31	1.04	0.32	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.01488213
5592050	11/12/1997	0.31	0.31	1.04	0.32	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.01488213
5592050	11/17/1997	0.31	0.31	1.04	0.32	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.01488213
5592050	8/14/1999	0.31	0.31	1.04	0.32	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.01488213
5592050	10/14/1999	0.31	0.31	1.04	0.32	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.01488213
5592050	10/19/1999	0.31	0.31	1.04	0.32	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.01488213
5592050	10/22/1999	0.31	0.31	1.04	0.32	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.01488213
5592050	12/31/1999	0.31	0.31	1.04	0.32	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.01488213
5592050	8/29/2002	0.31	0.31	1.04	0.32	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.01488213
5592050	8/7/2003	0.31	0.31	1.04	0.32	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.01488213
5592050	9/19/2009	0.31	0.31	1.04	0.32	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.01488213
5592050	7/9/2012	0.31	0.31	1.04	0.32	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.01488213
5592050	7/10/2012	0.31	0.31	1.04	0.32	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.01488213
5592050	9/12/2012	0.31	0.31	1.04	0.32	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.01488213
5592050	10/7/2013	0.31	0.31	1.04	0.32	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.01488213
5592050	10/16/2013	0.31	0.31	1.04	0.32	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.01488213
5592050	10/17/2013	0.31	0.31	1.04	0.32	8847	92.4065%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	40.01488213

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	1/1/1990	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	9/9/1990	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	9/10/1990	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	9/28/1991	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	8/29/1992	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	9/20/1992	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	9/19/1994	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	8/8/1997	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	9/15/1997	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	9/17/1997	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	11/23/1997	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	8/18/1999	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	11/14/1999	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	1/1/2000	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	1/2/2000	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	2/2/2000	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	9/30/2001	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	10/1/2001	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	9/14/2002	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	9/14/2012	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	9/15/2012	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	10/15/2013	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	12/7/2013	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	7/31/2014	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	9/19/2015	0.3	0.30	1.04	0.31	8867	92.6154%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	38.72407948
5592050	9/20/1990	0.29	0.29	1.04	0.30	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.43327683
5592050	10/6/1990	0.29	0.29	1.04	0.30	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.43327683
5592050	8/4/1991	0.29	0.29	1.04	0.30	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.43327683
5592050	9/3/1991	0.29	0.29	1.04	0.30	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.43327683
5592050	10/12/1991	0.29	0.29	1.04	0.30	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.43327683
5592050	9/3/1992	0.29	0.29	1.04	0.30	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.43327683

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	8/24/1996	0.29	0.29	1.04	0.30	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.43327683
5592050	9/24/1996	0.29	0.29	1.04	0.30	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.43327683
5592050	8/30/1997	0.29	0.29	1.04	0.30	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.43327683
5592050	10/20/1999	0.29	0.29	1.04	0.30	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.43327683
5592050	8/30/2002	0.29	0.29	1.04	0.30	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.43327683
5592050	10/2/2006	0.29	0.29	1.04	0.30	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.43327683
5592050	7/12/2012	0.29	0.29	1.04	0.30	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.43327683
5592050	7/19/2012	0.29	0.29	1.04	0.30	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.43327683
5592050	7/21/2012	0.29	0.29	1.04	0.30	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.43327683
5592050	7/24/2012	0.29	0.29	1.04	0.30	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.43327683
5592050	8/3/2012	0.29	0.29	1.04	0.30	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.43327683
5592050	8/20/2012	0.29	0.29	1.04	0.30	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.43327683
5592050	10/3/2013	0.29	0.29	1.04	0.30	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.43327683
5592050	10/9/2013	0.29	0.29	1.04	0.30	8892	92.8765%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	37.43327683
5592050	9/24/1992	0.28	0.28	1.04	0.29	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.14247418
5592050	9/27/1992	0.28	0.28	1.04	0.29	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.14247418
5592050	10/17/1992	0.28	0.28	1.04	0.29	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.14247418
5592050	10/23/1992	0.28	0.28	1.04	0.29	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.14247418
5592050	9/25/1996	0.28	0.28	1.04	0.29	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.14247418
5592050	11/2/1997	0.28	0.28	1.04	0.29	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.14247418
5592050	11/25/1997	0.28	0.28	1.04	0.29	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.14247418
5592050	8/22/1999	0.28	0.28	1.04	0.29	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.14247418
5592050	11/15/1999	0.28	0.28	1.04	0.29	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.14247418
5592050	10/2/2001	0.28	0.28	1.04	0.29	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.14247418
5592050	10/3/2001	0.28	0.28	1.04	0.29	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.14247418
5592050	10/4/2001	0.28	0.28	1.04	0.29	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.14247418
5592050	8/31/2002	0.28	0.28	1.04	0.29	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.14247418
5592050	9/13/2004	0.28	0.28	1.04	0.29	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.14247418
5592050	10/8/2004	0.28	0.28	1.04	0.29	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.14247418
5592050	10/8/2005	0.28	0.28	1.04	0.29	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.14247418
5592050	10/12/2013	0.28	0.28	1.04	0.29	8912	93.0854%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	36.14247418

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	9/1/1990	0.27	0.27	1.04	0.28	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.85167153
5592050	9/11/1990	0.27	0.27	1.04	0.28	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.85167153
5592050	9/23/1996	0.27	0.27	1.04	0.28	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.85167153
5592050	9/28/1996	0.27	0.27	1.04	0.28	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.85167153
5592050	10/16/1996	0.27	0.27	1.04	0.28	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.85167153
5592050	8/27/1997	0.27	0.27	1.04	0.28	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.85167153
5592050	10/13/1997	0.27	0.27	1.04	0.28	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.85167153
5592050	11/18/1997	0.27	0.27	1.04	0.28	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.85167153
5592050	11/24/1997	0.27	0.27	1.04	0.28	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.85167153
5592050	11/16/1999	0.27	0.27	1.04	0.28	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.85167153
5592050	1/22/2000	0.27	0.27	1.04	0.28	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.85167153
5592050	9/1/2002	0.27	0.27	1.04	0.28	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.85167153
5592050	8/8/2003	0.27	0.27	1.04	0.28	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.85167153
5592050	9/5/2011	0.27	0.27	1.04	0.28	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.85167153
5592050	8/13/2012	0.27	0.27	1.04	0.28	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.85167153
5592050	8/19/2012	0.27	0.27	1.04	0.28	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.85167153
5592050	9/18/2012	0.27	0.27	1.04	0.28	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.85167153
5592050	10/4/2013	0.27	0.27	1.04	0.28	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.85167153
5592050	10/10/2013	0.27	0.27	1.04	0.28	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.85167153
5592050	11/3/2015	0.27	0.27	1.04	0.28	8929	93.2630%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	34.85167153
5592050	8/25/1996	0.26	0.26	1.04	0.27	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.56086888
5592050	10/14/1996	0.26	0.26	1.04	0.27	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.56086888
5592050	10/15/1996	0.26	0.26	1.04	0.27	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.56086888
5592050	8/15/1999	0.26	0.26	1.04	0.27	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.56086888
5592050	8/16/1999	0.26	0.26	1.04	0.27	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.56086888
5592050	11/17/1999	0.26	0.26	1.04	0.27	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.56086888
5592050	9/2/2002	0.26	0.26	1.04	0.27	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.56086888
5592050	9/15/2004	0.26	0.26	1.04	0.27	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.56086888
5592050	10/11/2005	0.26	0.26	1.04	0.27	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.56086888
5592050	9/7/2011	0.26	0.26	1.04	0.27	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.56086888
5592050	7/20/2012	0.26	0.26	1.04	0.27	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.56086888

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	8/14/2012	0.26	0.26	1.04	0.27	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.56086888
5592050	10/5/2013	0.26	0.26	1.04	0.27	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.56086888
5592050	10/11/2013	0.26	0.26	1.04	0.27	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.56086888
5592050	10/13/2013	0.26	0.26	1.04	0.27	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.56086888
5592050	10/18/2013	0.26	0.26	1.04	0.27	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.56086888
5592050	9/20/2015	0.26	0.26	1.04	0.27	8949	93.4719%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	33.56086888
5592050	9/12/1990	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	7/17/1991	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	9/23/1991	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	8/30/1992	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	10/24/1992	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	10/12/1996	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	10/13/1996	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	9/16/1997	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	9/23/1997	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	10/27/1997	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	11/19/1997	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	8/17/1999	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	10/23/1999	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	11/18/1999	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	11/22/1999	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	9/3/2002	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	9/16/2002	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	8/18/2003	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	9/14/2004	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	9/16/2004	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	9/6/2011	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	7/11/2012	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	9/19/2012	0.25	0.25	1.04	0.26	8966	93.6495%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	32.27006624
5592050	9/5/1990	0.24	0.24	1.04	0.25	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.97926359
5592050	9/6/1990	0.24	0.24	1.04	0.25	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.97926359

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	9/22/1991	0.24	0.24	1.04	0.25	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.97926359
5592050	9/2/1992	0.24	0.24	1.04	0.25	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.97926359
5592050	9/4/1996	0.24	0.24	1.04	0.25	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.97926359
5592050	9/21/1996	0.24	0.24	1.04	0.25	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.97926359
5592050	10/10/1996	0.24	0.24	1.04	0.25	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.97926359
5592050	8/28/1997	0.24	0.24	1.04	0.25	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.97926359
5592050	11/20/1997	0.24	0.24	1.04	0.25	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.97926359
5592050	10/12/1998	0.24	0.24	1.04	0.25	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.97926359
5592050	11/19/1999	0.24	0.24	1.04	0.25	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.97926359
5592050	9/4/2002	0.24	0.24	1.04	0.25	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.97926359
5592050	8/20/2003	0.24	0.24	1.04	0.25	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.97926359
5592050	10/6/2013	0.24	0.24	1.04	0.25	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.97926359
5592050	10/14/2013	0.24	0.24	1.04	0.25	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.97926359
5592050	9/1/2015	0.24	0.24	1.04	0.25	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.97926359
5592050	11/10/2015	0.24	0.24	1.04	0.25	8989	93.8897%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.97926359
5592050	9/2/1990	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/3/1990	0.2	0.20	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/4/1990	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/7/1990	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/8/1990	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/13/1990	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/14/1990	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/15/1990	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/16/1990	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/17/1990	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	7/18/1991	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	7/19/1991	0.2	0.20	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	7/20/1991	0.19	0.19	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	7/21/1991	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	7/22/1991	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	7/23/1991	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	7/24/1991	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	7/25/1991	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	7/26/1991	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	7/27/1991	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	7/28/1991	0.19	0.19	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	7/30/1991	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	7/31/1991	0.13	0.13	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/1/1991	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/2/1991	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/3/1991	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/10/1991	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/11/1991	0.01	0.01	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/12/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/13/1991	0.2	0.20	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/14/1991	0.04	0.04	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/15/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/16/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/17/1991	0.01	0.01	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/18/1991	0.01	0.01	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/19/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/20/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/21/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/22/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/23/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/24/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/25/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/26/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/27/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/28/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/29/1991	0.13	0.13	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/30/1991	0.02	0.02	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/31/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/1/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/2/1991	0.05	0.05	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/4/1991	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/5/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/6/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/7/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/8/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/9/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/11/1991	0.06	0.06	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/12/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/13/1991	0.06	0.06	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/14/1991	0.07	0.07	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/15/1991	0.04	0.04	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/16/1991	0.02	0.02	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/17/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/18/1991	0.04	0.04	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/19/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/20/1991	0.02	0.02	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/21/1991	0.05	0.05	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/24/1991	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/25/1991	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/26/1991	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/27/1991	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/30/1991	0.05	0.05	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/1/1991	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/2/1991	0.04	0.04	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/3/1991	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/7/1991	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/8/1991	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/9/1991	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	10/10/1991	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/11/1991	0.2	0.20	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/31/1992	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/1/1992	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/4/1992	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/5/1992	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/6/1992	0.13	0.13	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/7/1992	0.13	0.13	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/8/1992	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/9/1992	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/11/1992	0.05	0.05	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/12/1992	0.01	0.01	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/13/1992	0.01	0.01	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/14/1992	0.06	0.06	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/15/1992	0.06	0.06	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/16/1992	0.04	0.04	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/17/1992	0.05	0.05	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/18/1992	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/19/1992	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/28/1992	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/29/1992	0.06	0.06	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/30/1992	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/1/1992	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/2/1992	0.08	0.08	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/3/1992	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/4/1992	0.08	0.08	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/5/1992	0.08	0.08	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/6/1992	0.07	0.07	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/7/1992	0.08	0.08	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/8/1992	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/9/1992	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/10/1992	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/11/1992	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/12/1992	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/13/1992	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/14/1992	0.13	0.13	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/15/1992	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/18/1992	0.19	0.19	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/19/1992	0.19	0.19	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/25/1992	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/26/1992	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/27/1992	0.2	0.20	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/28/1992	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/29/1992	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/26/1996	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/27/1996	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/28/1996	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/29/1996	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/30/1996	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/31/1996	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/1/1996	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/2/1996	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/5/1996	0.19	0.19	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/6/1996	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/7/1996	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/8/1996	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/9/1996	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/10/1996	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/11/1996	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/12/1996	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/13/1996	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/14/1996	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	9/15/1996	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/17/1996	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/18/1996	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/19/1996	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/20/1996	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/22/1996	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/29/1996	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/30/1996	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/1/1996	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/2/1996	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/3/1996	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/4/1996	0.2	0.20	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/5/1996	0.19	0.19	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/6/1996	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/7/1996	0.19	0.19	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/8/1996	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/9/1996	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/11/1996	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/29/1997	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/1/1997	0.2	0.20	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/2/1997	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/3/1997	0.05	0.05	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/4/1997	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/5/1997	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/6/1997	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/7/1997	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/8/1997	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/18/1997	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/19/1997	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/20/1997	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/21/1997	0.08	0.08	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	9/22/1997	0.06	0.06	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/24/1997	0.2	0.20	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/25/1997	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/26/1997	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/27/1997	0.08	0.08	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/28/1997	0.06	0.06	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/29/1997	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/30/1997	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/1/1997	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/2/1997	0.13	0.13	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/3/1997	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/4/1997	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/5/1997	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/6/1997	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/7/1997	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/8/1997	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/9/1997	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/10/1997	0.2	0.20	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/11/1997	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/12/1997	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/14/1997	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/15/1997	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/16/1997	0.19	0.19	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/17/1997	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/18/1997	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/19/1997	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/20/1997	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/21/1997	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/22/1997	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/23/1997	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/24/1997	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	10/25/1997	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/28/1997	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/29/1997	0.2	0.20	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/30/1997	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/31/1997	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	11/3/1997	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	11/4/1997	0.2	0.20	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/13/1998	0.2	0.20	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/14/1998	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/15/1998	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/16/1998	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/25/1999	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/26/1999	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/27/1999	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/28/1999	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/29/1999	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/30/1999	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/31/1999	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/1/1999	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/2/1999	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/3/1999	0.2	0.20	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/4/1999	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/5/1999	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/6/1999	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/7/1999	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/8/1999	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/9/1999	0.08	0.08	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/10/1999	0.07	0.07	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/11/1999	0.06	0.06	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/12/1999	0.08	0.08	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/13/1999	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	9/14/1999	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/15/1999	0.13	0.13	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/16/1999	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/17/1999	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/18/1999	0.07	0.07	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/19/1999	0.06	0.06	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/20/1999	0.07	0.07	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/21/1999	0.08	0.08	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/22/1999	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/23/1999	0.08	0.08	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/24/1999	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/25/1999	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/26/1999	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/27/1999	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/28/1999	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/30/1999	0.05	0.05	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/1/1999	0.04	0.04	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/2/1999	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/4/1999	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/5/1999	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/6/1999	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/7/1999	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/9/1999	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/10/1999	0.08	0.08	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/11/1999	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/12/1999	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/13/1999	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/17/1999	0.2	0.20	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/18/1999	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/24/1999	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/25/1999	0.2	0.20	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	10/26/1999	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/27/1999	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/28/1999	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/29/1999	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/30/1999	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/31/1999	0.08	0.08	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	11/20/1999	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	11/21/1999	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/23/2000	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/24/2000	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/25/2000	0.2	0.20	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/26/2000	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/27/2000	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/28/2000	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/29/2000	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/30/2000	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/31/2000	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/1/2000	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/5/2002	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/6/2002	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/7/2002	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/8/2002	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/9/2002	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/10/2002	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/11/2002	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/12/2002	0.2	0.20	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/13/2002	0.2	0.20	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/17/2002	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/9/2003	0.19	0.19	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/10/2003	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/11/2003	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/12/2003	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/13/2003	0.06	0.06	1.04	0.24	9006	94.0673%	Non-volatile solids	8	mg/L	23.1	28.3	10.45153301	30.17880157
5592050	8/14/2003	0.02	0.02	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/15/2003	0.05	0.05	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/16/2003	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/17/2003	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/21/2003	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/22/2003	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/23/2003	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/24/2003	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/25/2003	0.13	0.13	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/26/2003	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/27/2003	0.04	0.04	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/28/2003	0.01	0.01	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/29/2003	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/30/2003	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/17/2004	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/18/2004	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/19/2004	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/20/2004	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/21/2004	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/22/2004	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/23/2004	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/24/2004	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/25/2004	0.08	0.08	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/26/2004	0.07	0.07	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/27/2004	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/28/2004	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/29/2004	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/30/2004	0.13	0.13	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/1/2004	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	10/2/2004	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/3/2004	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/4/2004	0.08	0.08	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/5/2004	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/6/2004	0.13	0.13	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/7/2004	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/22/2005	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/23/2005	0.19	0.19	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/24/2005	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/27/2005	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/28/2005	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/30/2005	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/1/2005	0.13	0.13	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/2/2005	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/3/2005	0.07	0.07	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/4/2005	0.06	0.06	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/5/2005	0.05	0.05	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/6/2005	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/7/2005	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/10/2005	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/3/2006	0.19	0.19	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/4/2006	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/5/2006	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/6/2006	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/7/2006	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/8/2006	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/9/2006	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/10/2006	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/11/2006	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/12/2006	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/13/2006	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	10/14/2006	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/15/2006	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/2/2007	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/5/2007	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/6/2007	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/7/2007	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/8/2007	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/9/2007	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/10/2007	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/11/2007	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/12/2007	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/13/2007	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/14/2007	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/15/2007	0.2	0.20	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	7/25/2012	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	7/26/2012	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	7/27/2012	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	7/28/2012	0.13	0.13	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	7/29/2012	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	7/30/2012	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	7/31/2012	0.13	0.13	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/1/2012	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/4/2012	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/5/2012	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/6/2012	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/7/2012	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/8/2012	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/10/2012	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/11/2012	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/12/2012	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/15/2012	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/18/2012	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/29/2012	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/30/2012	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/31/2012	0.13	0.13	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/16/2012	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/17/2012	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/20/2012	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/21/2012	0.19	0.19	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/22/2012	0.19	0.19	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/23/2012	0.2	0.20	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/24/2012	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/27/2012	0.08	0.08	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/28/2012	0.01	0.01	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/29/2012	0.01	0.01	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/30/2012	0.02	0.02	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/1/2012	0.04	0.04	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/2/2012	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/3/2012	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/4/2012	0.13	0.13	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/26/2013	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/27/2013	0.05	0.05	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/28/2013	0.04	0.04	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/29/2013	0.04	0.04	1.04	0.24	9006	94.0673%	Non-volatile solids	29	mg/L	23.1	28.3	37.88680716	30.17880157
5592050	8/30/2013	0.04	0.04	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/31/2013	0.08	0.08	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/1/2013	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/2/2013	0.07	0.07	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/3/2013	0.04	0.04	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/4/2013	0.06	0.06	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/5/2013	0.05	0.05	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/6/2013	0.05	0.05	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	9/7/2013	0.04	0.04	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/8/2013	0.04	0.04	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/9/2013	0.03	0.03	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/10/2013	0.01	0.01	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/11/2013	0.01	0.01	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/12/2013	0.06	0.06	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/13/2013	0.13	0.13	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/14/2013	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/15/2013	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/16/2013	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/17/2013	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/18/2013	0.21	0.21	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/19/2013	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/21/2013	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/22/2013	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/23/2013	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/24/2013	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/25/2013	0.05	0.05	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/26/2013	0.04	0.04	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/27/2013	0.06	0.06	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/28/2013	0.05	0.05	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/29/2013	0.13	0.13	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/30/2013	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/1/2013	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/2/2013	0.2	0.20	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/4/2014	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/5/2014	0.03	0.03	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/6/2014	0.01	0.01	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/7/2014	0.13	0.13	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/13/2014	0.08	0.08	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/14/2014	0.02	0.02	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	8/15/2014	0.01	0.01	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/16/2014	0.01	0.01	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/17/2014	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/18/2014	0.05	0.05	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/19/2014	0.03	0.03	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/23/2014	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/24/2014	0.02	0.02	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/25/2014	0.01	0.01	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/26/2014	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/30/2014	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	8/31/2014	0.02	0.02	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/1/2014	0.02	0.02	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/4/2014	0.19	0.19	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/5/2014	0.03	0.03	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/8/2014	0.02	0.02	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/9/2014	0.01	0.01	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/2/2015	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/3/2015	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/4/2015	0.08	0.08	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/5/2015	0.08	0.08	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/6/2015	0.07	0.07	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/7/2015	0.05	0.05	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/10/2015	0.06	0.06	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/11/2015	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/12/2015	0.19	0.19	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/13/2015	0.19	0.19	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/14/2015	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/15/2015	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/16/2015	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/17/2015	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/18/2015	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	9/21/2015	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/22/2015	0.17	0.17	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/23/2015	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/24/2015	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/25/2015	0.16	0.16	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/26/2015	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/27/2015	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/28/2015	0.15	0.15	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/29/2015	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	9/30/2015	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/1/2015	0.13	0.13	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/2/2015	0.13	0.13	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/3/2015	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/4/2015	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/5/2015	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/6/2015	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/7/2015	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/8/2015	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/9/2015	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/10/2015	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/11/2015	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/12/2015	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/13/2015	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/14/2015	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/15/2015	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/16/2015	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/17/2015	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/18/2015	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/19/2015	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/20/2015	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/21/2015	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day)
5592050	10/22/2015	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/23/2015	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/24/2015	0.08	0.08	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/25/2015	0.09	0.09	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/26/2015	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/27/2015	0.22	0.22	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/28/2015	0.23	0.23	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/29/2015	0.12	0.12	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/30/2015	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	10/31/2015	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	11/1/2015	0.1	0.10	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	11/2/2015	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	11/5/2015	0.02	0.02	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	11/6/2015	0.06	0.06	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	11/7/2015	0.11	0.11	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	11/8/2015	0.14	0.14	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	11/9/2015	0.18	0.18	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/18/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/19/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/20/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/21/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/22/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/23/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/24/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/25/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/26/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/27/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/28/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/29/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/30/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	1/31/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157

TSS Load Duration Curve Calculations
(EZM-02)

Appendix D

Middle Sangamon River Watershed

Gage ID	Date	Discharge (CFS)	Gage Discharge (less Surrogate NPDES) (CFS)	Watershed Area Ratio	Calculated flow (CFS)	Rank	Flow Exceedance %	Parameter	Results	Units	LRS Target	L/CF	Actual Load (lbs/day)	Allowable Load lbs/day
5592050	2/1/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/2/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/3/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/4/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/5/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/6/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/7/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/8/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/9/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/10/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/11/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/12/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/13/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/14/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/15/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/16/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/17/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/18/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/19/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/20/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/21/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/22/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/23/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/24/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157
5592050	2/25/2016	0	0.00	1.04	0.24	9006	94.0673%	Non-volatile solids	--	mg/L	23.1	28.3	#VALUE!	30.17880157

Appendix E

Public Comments

From: Paul Marien [<mailto:PMarien@maconcountyconservation.org>]
Sent: Monday, October 02, 2017 9:18 AM
To: Haile, Abel <Abel.Haile@Illinois.gov>
Cc: Shane Ravellette <SRavellette@maconcountyconservation.org>
Subject: [External] public comment Middle Sangamon River Watershed TMDL plan

Hi Abel,

Below are my comments for input toward the Middle Sangamon River Watershed TMDL Plan (Stage 3).

Between the segments E-06 and E-05 (including E-09) identified in the draft plan, we have witnessed severe streambank erosion over the past number of years. The erosion is beyond normal that would typically occur. It is due largely from heavy releases from Lake Decatur Dam upstream after heavy rainfall. This is loading large amounts of sediment in the water. Trees that normally hold the soil in the river bank are being undercut and fall in the river leaving the bank even more exposed to erode. Attached to this email comment is a picture taken at Segment E-09 illustrating what is happening along the River's corridor.

Riparian habitat along these segments is being compromised. Section 9 of the draft plan cites the importance of preserving this habitat for its filtering ability and root vegetation to hold soil as well as reducing solar radiation in the river. These segments should include Best Management Practices using stone toe protection and rock riffles to slow down the energy of the river's water.

Section 9 of the draft plan identifies the Long Point Slough and Buckhart Creek sections for need to control sedimentation and siltation. Segments E-05, E-06 and E-09 need to be included as well.

Paul Marien
Executive Director
Macon County Conservation District
3939 Nearing Lane
Decatur, IL 62521
Ph: 217-423-7708

From: Schulenberg, Rebekah [<mailto:schulenberg@vmcmail.com>]
Sent: Monday, September 25, 2017 11:35 AM
To: Haile, Abel <Abel.Haile@Illinois.gov>
Cc: Bell, Regina <bellr@vmcmail.com>; Robert McMahan <mcmahanr@vmcmail.com>; Kevin Cox <CoxK@vmcmail.com>
Subject: [External] IEPA Public Notice for TMDLs on Sangamon River

I am writing in regards to our Vulcan Construction Materials Rochester Sand & Gravel Plant that received a public notice in regards to your Sangamon River Watershed meeting for Fecal Coliform and sedimentation/siltation TMDLs. I have a couple of questions for you regarding the Draft Stage 3 TMDL Report:

1. We are listed within Section E-16 for Fecal Coliform, not any of the sections for sedimentation/siltation. Will we be required to follow any BMPs for sedimentation/siltation?
If applicable, Fecal Coliform WLA will be assigned for NPDES Permits that have Fecal Coliform effluent limits in their permits.
The BMPs for sedimentation/siltation are intended to address agricultural and urban stormwater runoff related to nonpoint source pollution.
2. We are listed as **individual** permit number IL0069060 in your reports. We are not covered under that individual permit anymore. We are covered under a General Mining Permit ILG840188. We do not have any potential for generating fecal coliform. Will we be required to follow any BMPs for this?
We will correct the NPDES Permit number.
3. Is this entire public meeting in regards to Load Reduction Strategies and BMPs? Essentially, there won't be any new limits placed in permits correct?
The purpose of the public meeting is to inform the general public, Permittees, and stakeholders about the TMDL development process, the WLA implications (if applicable), and the Load Allocation and Load Reduction Strategy that may be addressed through BMPs.
4. My understanding, therefore, from reading your Draft Stage 3 report is that these Load Reduction Strategies will not affect Vulcan because we are not in the area of the Sangamon affected by TSS and sediment impairments. Am I reading this correctly?
That is correct, LRS is a voluntary measures as discussed above.

I don't plan on attending the meeting unless your office plans to be discussing topics significantly different than the Tier 3 Draft Report.

The public meeting will only focus on the Draft Stage 3 TMDL Report as posted on the Agency website.

Thank you -

Rebekah Schulenberg

--

Rebekah D. Schulenberg
Environmental Specialist
Vulcan Materials Company
1000 East Warrenville Road
Naperville, IL 60563
(O) 630-955-8577
(C) 708-906-7652

 <http://myvulcan.com/>
Your account. Anytime. Anywhere.

Appendix F

Responsiveness Summary

Responsiveness Summary

Middle Sangamon River Watershed

Total Maximum Daily Load

The responsiveness summary responds to questions and comments received during the public comment period from September 27, 2017, through October 27, 2017.

What is a TMDL?

A Total Maximum Daily Load (TMDL) is the sum of the allowable amount of a pollutant that a water body can receive from all contributing sources and still meet water quality standards or designated uses. **The Middle Sangamon River Watershed** TMDL report contains a plan detailing the actions necessary to reduce pollutant loads to the impaired water bodies and ensure compliance with applicable water quality standards. The Illinois EPA implements the TMDL program in accordance with Section 303(d) of the federal Clean Water Act and regulations thereunder.

Background

The watershed targeted for TMDL development is **Middle Sangamon River Watershed** located in central Illinois, flows in a westerly direction, and drains approximately 328,000 acres. A total of 150,085 acres (46 percent of the total watershed) lie in Macon County, 95,405 acres (29 percent of the total watershed) lie in northern Christian County, 82,111 acres (25 percent of the total watershed) lie in eastern Sangamon County, and 709 acres (0.2 percent of the total watershed) lie in southern Logan County.

The Clean Water Act and USEPA regulations require that states develop TMDLs for waters on the Section 303(d) List. Illinois EPA is currently developing TMDLs for pollutants that have numeric water quality standards. Therefore, Fecal Coliform TMDL was developed for Sangamon River (waterbody segments – E-05, E-06, E-09, and E-16) listed as impaired for primary contact and recreation per the *Draft Illinois Integrated Water Quality Report and Section 303(d) List-2016*.

In addition, a Load Reduction Strategy (LRS) was developed for pollutant(s) that do not have numeric water quality standard. These include Sedimentation/Siltation for Long Point Slough (waterbody segment - ERA-01) and Buckart Creek (waterbody segment – EZM -02).

Illinois EPA contracted with CDM Smith (TMDL Consultant) to prepare the TMDL report for Middle Sangamon River Watershed TMDL project.

Public Meetings

The draft Stage One public meeting was held on September 11, 2014 (6:00 pm) at Richland Community College, Decatur, Illinois, and the draft Stage 3 public meeting was held on September 27, 2017 at the same location. Illinois EPA provided public notice for both meetings by placing display-ad in the Decatur-Herald & Review (the local newspaper). In addition, a direct mailing was sent to several stakeholders/Permittees in the watershed. The notice gave the date, time, location, and purpose of the meeting. The notice also provided references on how to obtain additional information about this specific site, the TMDL program, and other related information. The draft TMDL report was available for review at the City of Decatur Public Library and Harristown Village Hall, and on the Agency's webpage: www.epa.illinois.gov/public-notices/index.

The Stage 3 public meeting started at 6:00 p.m. on Wednesday, September 27, 2017. It was attended by approximately 10 people and concluded at 8:00 p.m., with the meeting record remaining open until midnight, October 27, 2017.

Questions & Comments

1. Between the segments E-06 and E-05 (including E-09) identified in the draft plan, we have witnessed severe streambank erosion over the past number of years. The erosion is beyond normal that would typically occur. It is due largely from heavy releases from Lake Decatur Dam upstream after heavy rainfall. This is loading large amounts of sediment in the water. Trees that normally hold the soil in the river bank are being undercut and fall in the river leaving the bank even more exposed to erode. Attached to this email comment is a picture taken at Segment E-09 illustrating what is happening along the River's corridor.



RESPONSE: This information has been added to Section 9.4 (page 9-8).

2. Riparian habitat along these segments is being compromised. Section 9 of the draft plan cite the importance of preserving this habitat for its filtering ability and root vegetation to hold soil as well as reducing solar radiation in the river. These segments should include Best Management Practices using stone toe protection and rock riffles to slow down the energy of the river's water.

RESPONSE: Pages 9-12 and -13 contains information on streambank stabilization/erosion control measures including stone toe protection, rock riffle grade control, rock chutes, and floodplain excavation.

3. Section 9 of the draft plan identifies the Long Point Slough and Buckhart Creek sections for need to control sedimentation and siltation. Segments E-05, E-06 and E-09 need to be included as well.

RESPONSE: Although these segments are not on the 303(d) list for TSS or sedimentation, text has been added to Section 9 to highlight stakeholder

observations and to suggest that sedimentation and siltation control measures are applicable to the Middle Sangamon segments as well.

4. We are listed within Section E-16 for Fecal Coliform, not any of the sections for sedimentation/siltation. Will we be required to follow any BMPs for sedimentation/siltation?

RESPONSE: Fecal Coliform WLA will be assigned for NPDES Permits that have been identified as dischargers to Fecal Coliform impaired streams as part of the TMDL WLA load capacity analysis.

The BMPs for sedimentation/siltation are intended to address agricultural and urban stormwater runoff related to nonpoint source pollution.

5. We are listed as individual permit number IL0069060 in your reports. We are not covered under that individual permit anymore. We are covered under a General Mining Permit ILG840188. We do not have any potential for generating fecal coliform. Will we be required to follow any BMPs for this?

RESPONSE: The NPDES Permit number has been corrected in the Final Draft TMDL report. A fecal coliform WLA has not been assigned to this facility and there are no BMP requirements.

6. Is this entire public meeting in regard to Load Reduction Strategies and BMPs? Essentially, there won't be any new limits placed in permits correct?

RESPONSE: The purpose of the public meeting is to inform the public, Permittees, and stakeholders about the TMDL development process, the WLA implications for NPDES Permits, the Load Allocation, and Load Reduction Strategy that may be addressed through BMPs. Where applicable a WLA has been assigned to point source dischargers as discussed in the report.

7. From reading the Draft Stage 3 report, is that these Load Reduction Strategies will not affect Vulcan because we are not in the Sangamon affected by TSS and sediment impairments. Am I reading this correctly?

RESPONSE: That is correct, LRS is a voluntary measure as discussed above and in the TMDL report.

8. I don't plan on attending the meeting unless your office plans to be discussing topics significantly different than the Tier 3 Draft Report.

RESPONSE: The focus of the public meeting is only on the Draft Stage 3 TMDL Report as posted on the Agency's website.

