

NPDES Permit No. IL0027464
Notice No. REP:11050901.bah

Public Notice Beginning Date: **August 4, 2011**

Public Notice Ending Date: **September 6, 2011**

National Pollutant Discharge Elimination System (NPDES)
Permit Program

PUBLIC NOTICE/FACT SHEET
of
Draft Reissued NPDES Permit to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois EPA
Division of Water Pollution Control
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-0610

Name and Address of Discharger:

City of Alton
101 East Third Street
Alton, Illinois 62002

Name and Address of Facility:

City of Alton STP
19 Chessen Lane
Alton, Illinois
(Madison County)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue a NPDES Permit to discharge into the waters of the state and has prepared a draft Permit and associated fact sheet for the above named discharger. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice/Fact Sheet. All comments on the draft Permit and requests for hearing must be received by the IEPA by U.S. Mail, carrier mail or hand delivered by the Public Notice Ending Date. Interested persons are invited to submit written comments on the draft Permit to the IEPA at the above address. Commentors shall provide his or her name and address and the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to those issues. Commentors may include a request for public hearing. Persons submitting comments and/or requests for public hearing shall also send a copy of such comments or requests to the Permit applicant. The NPDES Permit and notice numbers must appear on each comment page.

The application, engineer's review notes including load limit calculations, Public Notice/Fact Sheet, draft Permit, comments received, and other documents are available for inspection and may be copied at the IEPA between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicates a significant degree of public interest in the draft Permit, the permitting authority may, at its discretion, hold a public hearing. Public notice will be given 45 days before any public hearing. Response to comments will be provided when the final Permit is issued. For further information, please call Richard E. Pinneo at 217/782-0610.

The following water quality and effluent standards and limitations were applied to the discharge:

Title 35: Environmental Protection, Subtitle C: Water Pollution, Chapter I: Pollution Control Board and the Clean Water Act were applied in determining the applicable standards, limitations and conditions contained in the draft Permit.

The applicant is engaged in treating domestic and industrial wastewater for the City of Alton and communities of Bethalto, Cottage Hills, Rosewood Heights, Meadow Brook, Moro and Godfrey Township.

The length of the Permit is approximately 5 years.

The main discharge number is 001. The seven day once in ten year low flow (7Q10) of the receiving stream, Mississippi River, is 21,490 cfs.

The design average flow (DAF) for the facility is 10.50 million gallons per day (MGD) and the design maximum flow (DMF) for the facility is 26.25 MGD. Treatment consists of screening, grit removal, primary settling, activated sludge and disinfection with chlorine. Sludge treatment includes Anaerobic digestion Aerobic digestion, dissolved air thickening, belt filtration, sludge drying beds and land application.

This reissued NPDES Permit does not increase the facility's DAF, DMF, concentration limits, and/or load limits.

Application is made for the existing discharge(s) which is (are) located in Madison County, Illinois. The following information identifies the discharge point, receiving stream and stream classifications:

Outfall	Receiving Stream	Latitude	Longitude	Stream Classification	Integrity Rating
001	Mississippi River	38°51'41" North	90°07'52" West	General Use	Not Rated
002	Mississippi River	38°53'06" North	90°09'34" West	General Use	Not Rated
003	Mississippi River	38°53'57" North	90°12'10" West	General Use	Not Rated
004	Mississippi River	38°53'23" North	90°11'14" West	General Use	Not Rated
007	Mississippi River	38°54'00" North	90°12'07" West	General Use	Not Rated
009	Wood River Creek	38°52'24" North	90°07'42" West	General Use	C

This permit authorizes discharge from 4 CSOs in accordance with 35 Ill. Adm. Code 306.305 into the following waters:

Mississippi River

This Permit also requires the implementation of a Long-Term CSO Control Plan. To assist you further in identifying the location of the discharges please see the attached map and the table below.

<u>Discharge No.</u>	<u>Name</u>
001	STP Outfall
002	Shields Valley
003	Central Avenue
004	Piasa Street
007	Turner Street
009	Secondary Treatment Discharge to Wood River Creek

Discharge Number 009 is the STP outfall to Wood River Creek. High river stages impede the flow through Discharge Number 001. Outfall 009 can only be used when the Mississippi River Stage is at or above the 25-year flood level and a minimum of 5:1 dilution ratio is maintained.

To assist you further in identifying the location of the discharge(s) please see the attached map.

The stream segment, J-05, receiving the discharge from outfalls 001, 002, 003, 004 and 007 is on the 303 (d) list of impaired waters.

The following parameters have been identified as the pollutants causing impairment:

<u>Potential Causes</u>	<u>Uses Impaired</u>
PCBs and Mercury	Fish Consumption
Manganese	Public and Food Processing Water Supply
Fecal Coliform	Primary Contact

The stream segment, JR-02, receiving the discharge from outfall 009 is on the 303 (d) list of impaired waters.

The following parameters have been identified as the pollutants causing impairment:

<u>Potential Causes</u>	<u>Uses Impaired</u>
Loss of instream cover (non-pollutant), instream side or littoral vegetative cover (non-pollutant), manganese, and total suspended solids	Aquatic Life Use
Fecal Coliform	Primary Contact

The discharge(s) from the facility is (are) proposed to be monitored and limited at all times as follows:

Discharge Number(s) and Name(s): 001 STP Outfall

Load limits computed based on a design average flow (DAF) of 10.50 MGD (design maximum flow (DMF) of 26.25 MGD).

The effluent of the above discharge(s) shall be monitored and limited at all times as follows:

Parameter	LOAD LIMITS lbs/day* DAF (DMF)			CONCENTRATION LIMITS mg/L			Regulation
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	
CBOD ₅	1751 (4378)	3503(8757)		20	40		35 IAC 304.120 40 CFR 133.102
Suspended Solids	2189 (5473)	3941 (9852)		25	45		35 IAC 304.120 40 CFR 133.102
pH	Shall be in the range of 6 to 9 Standard Units						35 IAC 304.125
Fecal Coliform	Daily Maximum shall not exceed 400 per 100 mL (May through October)						35 IAC 304.121
Chlorine Residual						0.75	35 IAC 302.208
Total Phosphorus	Monitor Only						35 IAC 309.146
Total Nitrogen	Monitor Only						35 IAC 309.146

*Load Limits are calculated by using the formula: $8.34 \times (\text{Design Average and/or Maximum Flow in MGD}) \times (\text{Applicable Concentration in mg/L})$.

Discharge Number(s) and Name(s): 009 Secondary Treatment Discharge to Wood River Creek (when Mississippi River Stage is above 25-Year Flood Elevation)

Load limits computed based on a design average flow (DAF) of 10.50 MGD (design maximum flow (DMF) of 26.25 MGD).

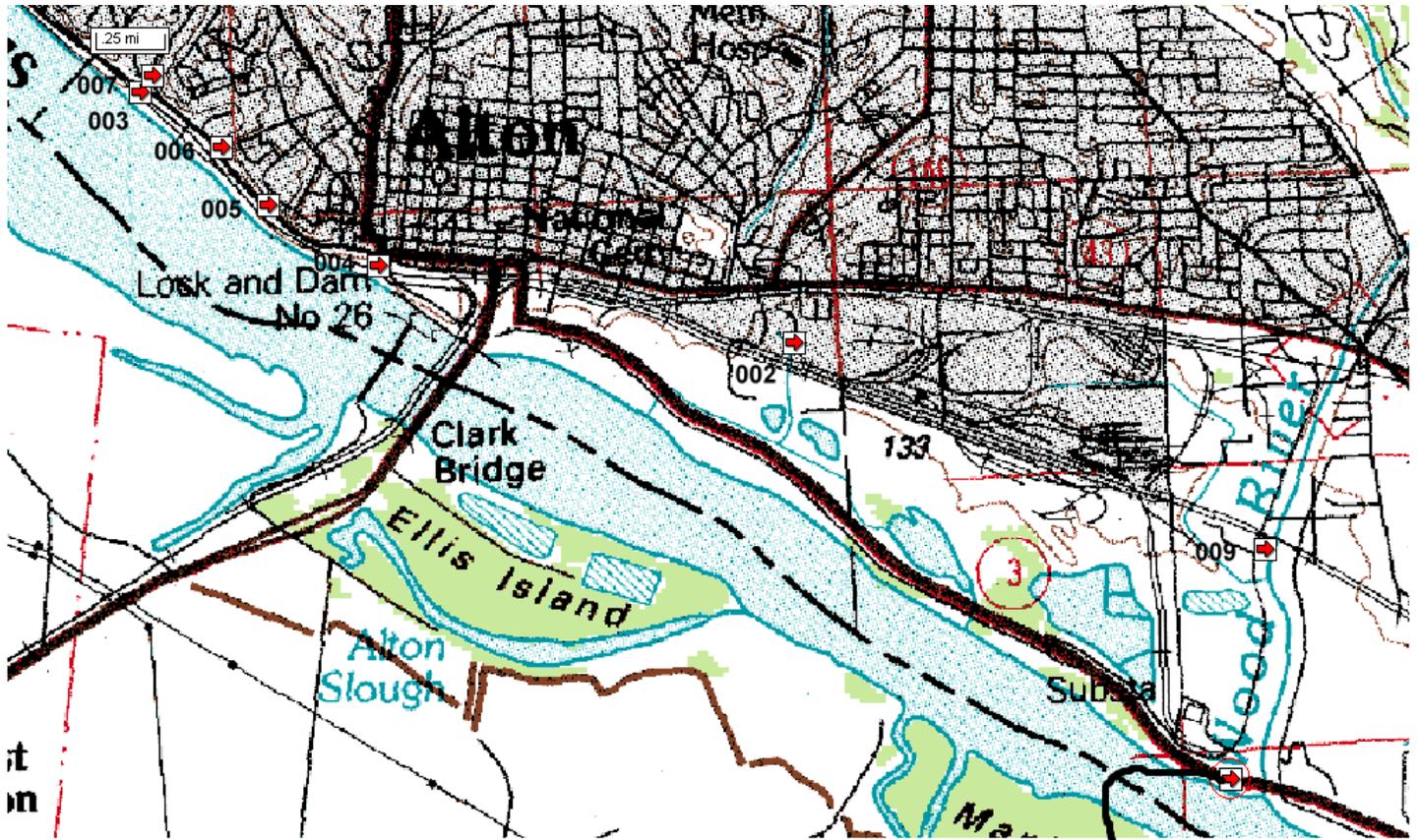
The effluent of the above discharge(s) shall be monitored and limited at all times as follows:

Parameter	LOAD LIMITS lbs/day* DAF (DMF)			CONCENTRATION LIMITS mg/L			Regulation
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	
CBOD ₅	1751 (4378)	3503 (8757)		20	40		35 IAC 304.120 40 CFR 133.102
Suspended Solids	2189 (5473)	3941 (9852)		25	45		35 IAC 304.120 40 CFR 133.102
pH	Shall be in the range of 6 to 9 Standard Units						35 IAC 304.125
Fecal Coliform	Daily Maximum shall not exceed 400 per 100 mL (May through October)						35 IAC 304.121
Chlorine Residual						0.75	35 IAC 302.208
Total Phosphorus	Monitor Only						35 IAC 309.146
Total Nitrogen	Monitor Only						35 IAC 309.146
Ammonia Nitrogen: March-May/Sept.-Oct. June-August Nov.-Feb.	218.9 (547) 166 (416) ----	---- 420 (1051) ----	420 (1051) 587 (1467) 552 (1379)	2.5 1.9 ----	---- 4.8 ----	4.8 6.7 6.3	35 IAC 355 and 35 IAC 302

*Load Limits are calculated by using the formula: $8.34 \times (\text{Design Average and/or Maximum Flow in MGD}) \times (\text{Applicable Concentration in mg/L})$.

This draft Permit also contains the following requirements as special conditions:

1. Reopening of this Permit to include different final effluent limitations.
2. Operation of the facility by or under the supervision of a certified operator.
3. Submission of the operational data in a specified form and at a required frequency at any time during the effective term of this Permit.
4. More frequent monitoring requirement without Public Notice in the event of operational, maintenance or other problems resulting in possible effluent deterioration.
5. Prohibition against causing or contributing to violations of water quality standards.
6. Effluent sampling point location.
7. Controlling the sources of infiltration and inflow into the sewer system.
8. Seasonal fecal coliform limits.
9. Monitoring for arsenic, barium, cadmium, hexavalent chromium, total chromium, copper, weak acid dissociable cyanide, total cyanide, fluoride, dissolved iron, total iron, lead, manganese, mercury, nickel, oil, phenols, selenium, silver and zinc is required to be conducted semi-annually beginning 3 months from the effective date.
10. Burden reduction.
11. Submission of annual fiscal data.
12. The Permittee is required to perform biomonitoring tests in the 18th, 15th, 12th and 9th months prior to the expiration date of the permit, and to submit the results of such tests to the IEPA within one week of receiving the results from the laboratory.
13. Emergency bypass provisions for Discharge Number 009.
14. Submission of semi annual reports indicating the quantities of sludge generated and disposed.
15. An authorization of combined sewer and treatment plant discharges.
16. Recording the monitoring results on Discharge Monitoring Report Forms using one such form for each outfall each month and submitting the forms to IEPA each month.
17. Submission of a Capacity Management, Operation and Maintenance (CMOM) plan.
18. The provisions of 40 CFR Section 122.41(m) & (n) are applicable and are hereby incorporated by reference.
19. Recognition of a zone of initial dilution and mixing zone dilution.



IL0027464
City of Alton
Outfall 001

NPDES Permit No. IL0027464

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued (NPDES) Permit

Expiration Date:

Issue Date:

Effective Date:

Name and Address of Permittee:

Facility Name and Address:

City of Alton
101 East Third Street
Alton, Illinois 62002

City of Alton STP
19 Chessen Lane
Alton, Illinois
(Madison County)

Receiving Waters: Mississippi River

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of the Ill. Adm. Code, Subtitle C, Chapter I, and the Clean Water Act (CWA), the above-named Permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the Permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

SAK:REP:11050901.bah

NPDES Permit No. IL0027464

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): 001 STP Outfall

Load limits computed based on a design average flow (DAF) of 10.50 MGD (design maximum flow (DMF) of 26.25 MGD).

Excess flow facilities (if applicable) shall not be utilized until the main treatment facility is receiving its maximum practical flow.

From the modification date of this Permit until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

Parameter	LOAD LIMITS lbs/day DAF (DMF)*			CONCENTRATION LIMITS MG/L			Sample Frequency	Sample Type
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum		
Flow (MGD)							Continuous	
CBOD ₅ **	1751 (4378)	3503 (8757)		20	40		2 days/week	Composite
Suspended Solids	2189 (5473)	3941 (9852)		25	45		2 days/week	Composite
pH	Shall be in the range of 6 to 9 Standard Units						2 days/week	Grab
Fecal Coliform***	Daily Maximum shall not exceed 400 per 100 mL (May through October)						2 days/week	Grab
Chlorine Residual***						0.75	2 days/week	Grab
Total Phosphorus	Monitor Only						1 day/month	Composite
Total Nitrogen	Monitor Only						1 day/month	Composite

*Load limits based on design maximum flow shall apply only when flow exceeds design average flow.

**Carbonaceous BOD₅ (CBOD₅) testing shall be in accordance with 40 CFR 136.

***See Special Condition 8.

Flow shall be reported on the Discharge Monitoring Report (DMR) as a monthly average and daily maximum.

Fecal Coliform shall be reported on the DMR as a daily maximum.

pH shall be reported on the DMR as a minimum and a maximum.

Chlorine Residual shall be reported on DMR as a daily maximum.

Total phosphorus and total nitrogen shall be reported on the DMR as a monthly average and daily maximum.

NPDES Permit No. IL0027464

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): 009 Secondary Treatment Outfall to Wood River Creek (See Special Condition 13)

Discharge from this outfall is prohibited except when: 1.) River stage on the Mississippi River is at or above the 25 year flood elevation and the dilution ratio in Wood River Creek is at least 500% of the flow discharged; or, 2.) the requirements of Special Condition 13 are fully complied with.

Load limits computed based on a design average flow (DAF) of 10.50 MGD (design maximum flow (DMF) of 26.25 MGD).

From the modification date of this Permit until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

Parameter	LOAD LIMITS lbs/day DAF (DMF)*			CONCENTRATION LIMITS MG/L			Sample Frequency	Sample Type
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum		
Flow (MGD)							Continuous	
Dilution Ratio	Shall not be less than 500%						Daily When Discharging	
CBOD ₅ **	1751 (4378)	3503 (8757)		20	40		Daily When Discharging	Composite
Suspended Solids	2189 (5473)	3941 (9852)		25	45		Daily When Discharging	Composite
pH	Shall be in the range of 6 to 9 Standard Units						Daily When Discharging	Grab
Fecal Coliform***	Daily Maximum shall not exceed 400 per 100 mL (May through October)						Daily When Discharging	Grab
Chlorine Residual***						0.75	Daily When Discharging	Grab
Total Phosphorus	Monitor Only						Daily When Discharging	Composite
Total Nitrogen	Monitor Only						Daily When Discharging	Composite
Ammonia Nitrogen as (N) March-May/Sept.-Oct.	218.9 (547)	----	420 (1051)	2.5	----	4.8	Daily When Discharging	Composite
June-August	166 (416)	420 (1051)	587 (1467)	1.9	4.8	6.7	Daily When Discharging	Composite
Nov.-Feb.	----	----	552 (1379)	----	----	6.3	Daily When Discharging	Composite

*Load limits based on design maximum flow shall apply only when flow exceeds design average flow.

**Carbonaceous BOD₅ (CBOD₅) testing shall be in accordance with 40 CFR 136.

***See Special Condition 8.

Flow shall be reported on the Discharge Monitoring Report (DMR) as a monthly average and a daily maximum.

Fecal Coliform shall be reported on the DMR as a daily maximum.

pH shall be reported on the DMR as a minimum and a maximum.

Chlorine Residual shall be reported on DMR as a daily maximum.

Dilution Ratio shall be calculated every day that discharge from this outfall occurs and shall be reported on the DMR as a minimum. For this calculation, Wood River Creek flow shall be measured upstream so as not be impacted by on Mississippi River back water.

Report the number of days of discharge in the comments section of the DMR.

Total phosphorus and total nitrogen shall be reported on the DMR as a monthly average and daily maximum.

NPDES Permit No. IL0027464

Influent Monitoring, and Reporting

The influent to the plant shall be monitored as follows:

Parameter	Sample Frequency	Sample Type
Flow (MGD)	Continuous	
BOD ₅	2 days/week	Composite
Suspended Solids	2 days/week	Composite

Influent samples shall be taken at a point representative of the influent.

Flow (MGD) shall be reported on the Discharge Monitoring Report (DMR) as monthly average and daily maximum.

BOD₅ and Suspended Solids shall be reported on the DMR as a monthly average concentration.

Special Conditions

SPECIAL CONDITION 1. This Permit may be modified to include different final effluent limitations or requirements which are consistent with applicable laws, regulations, or judicial orders. The IEPA will public notice the permit modification.

SPECIAL CONDITION 2. The use or operation of this facility shall be by or under the supervision of a Certified Class 1 operator.

SPECIAL CONDITION 3. The IEPA may request in writing submittal of operational information in a specified form and at a required frequency at any time during the effective period of this Permit.

SPECIAL CONDITION 4. The IEPA may request more frequent monitoring by permit modification pursuant to 40 CFR § 122.63 and Without Public Notice in the event of operational, maintenance or other problems resulting in possible effluent deterioration.

SPECIAL CONDITION 5. The effluent, alone or in combination with other sources, shall not cause a violation of any applicable water quality standard outlined in 35 Ill. Adm. Code 302.

SPECIAL CONDITION 6. Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge, but prior to entry into the receiving stream.

SPECIAL CONDITION 7. This Permit may be modified to include requirements for the Permittee on a continuing basis to evaluate and detail its efforts to effectively control sources of infiltration and inflow into the sewer system and to submit reports to the IEPA if necessary.

SPECIAL CONDITION 8. Fecal Coliform limits for Discharge Numbers 001 and 009 are effective May thru October. Sampling of Fecal Coliform is only required during this time period.

The total residual chlorine limit is applicable at all times. If the Permittee is chlorinating for any purpose during the months of November through April, sampling is required on a daily grab basis. Sampling frequency for the months of May through October shall be as indicated on effluent limitations, monitoring and reporting page of this Permit.

SPECIAL CONDITION 9. The Permittee shall conduct semi-annual monitoring of the effluent and report concentrations (in mg/l) of the following listed parameters. Monitoring shall begin three (3) months from the effective date of this permit. The sample shall be a 24-hour effluent composite except as otherwise specifically provided below and the results shall be submitted on Discharge Monitoring Report Forms to IEPA unless otherwise specified by the IEPA. The parameters to be sampled and the minimum reporting limits to be attained are as follows:

<u>STORET CODE</u>	<u>PARAMETER</u>	<u>Minimum reporting limit</u>
01002	Arsenic	0.05 mg/L
01007	Barium	0.5 mg/L
01027	Cadmium	0.001 mg/L
01032	Chromium (hexavalent) (grab)	0.01 mg/L
01034	Chromium (total)	0.05 mg/L
01042	Copper	0.005 mg/L
00718	Cyanide (weak acid dissociable) (grab)	5.0 ug/L
00720	Cyanide (total) (grab not to exceed 24 hours)	5.0 ug/L
00951	Fluoride	0.1 mg/L
01045	Iron (total)	0.5 mg/L
01046	Iron (Dissolved)	0.5 mg/L
01051	Lead	0.05 mg/L
01055	Manganese	0.5 mg/L
71900	Mercury (grab)**	1.0 ng/L*
01067	Nickel	0.005 mg/L
00556	Oil (hexane soluble or equivalent) (Grab Sample only)	5.0 mg/L
32730	Phenols (grab)	0.005 mg/L
01147	Selenium	0.005 mg/L
01077	Silver (total)	0.003 mg/L
01092	Zinc	0.025 mg/L

Unless otherwise indicated, concentrations refer to the total amount of the constituent present in all phases, whether solid, suspended or dissolved, elemental or combined, including all oxidation states.

*1.0 ng/L = 1 part per trillion.

**Utilize USEPA Method 1631E and the digestion procedure described in Section 11.1.1.2 of 1631E

Special Conditions

SPECIAL CONDITION 10. The Permittee has undergone a Monitoring Reduction review and the influent and effluent sample frequency has been reduced for BOD₅, CBOD₅, Suspended Solids, pH and Dissolved Oxygen due to sustained compliance. The IEPA will require that the influent and effluent sampling frequency for these parameters be increased to 5 days/week if effluent deterioration occurs due to increased wasteload, operational, maintenance or other problems. The increased monitoring will be required Without Public Notice when a permit modification is received by the Permittee from the IEPA.

SPECIAL CONDITION 11. During January of each year the Permittee shall submit annual fiscal data regarding sewerage system operations to the Illinois Environmental Protection Agency/Division of Water Pollution Control/Compliance Assurance Section. The Permittee may use any fiscal year period provided the period ends within twelve (12) months of the submission date.

Submission shall be on forms provided by IEPA titled "Fiscal Report Form For NPDES Permittees".

SPECIAL CONDITION 12. The Permittee shall conduct biomonitoring of the effluent from Discharge Number(s) 001.

Biomonitoring

1. Acute Toxicity - Standard definitive acute toxicity tests shall be run on at least two trophic levels of aquatic species (fish, invertebrate) representative of the aquatic community of the receiving stream. Testing must be consistent with Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (Fifth Ed.) EPA/821-R-02-012. Unless substitute tests are pre-approved; the following tests are required:
 - a. Fish - 96 hour static LC₅₀ Bioassay using fathead minnows (*Pimephales promelas*).
 - b. Invertebrate 48-hour static LC₅₀ Bioassay using *Ceriodaphnia*.
2. Testing Frequency - The above tests shall be conducted using 24-hour composite samples unless otherwise authorized by the IEPA. Samples must be collected in the 18th, 15th, 12th, and 9th month prior to the expiration date of this Permit.
3. Reporting - Results shall be reported according to EPA/821-R-02-012, Section 12, Report Preparation, and shall be submitted to IEPA, Bureau of Water, Compliance Assurance Section within one week of receipt from the laboratory. Reports are due to the IEPA no later than the 16th, 13th, 10th, and 7th month prior to the expiration date of this Permit.
4. Toxicity - Should a bioassay result in toxicity to >20% of organisms test in the 100% effluent treatment, the IEPA may require, upon notification, six (6) additional rounds of monthly testing on the affected organism(s) to be initiated within 30 days of the toxic bioassay. Results shall be submitted to IEPA within (1) week of becoming available to the Permittee. Should any of the additional bioassays result in toxicity to ≥50% of organisms tested in the 100% effluent treatments, the Permittee may wish to contact the IEPA to request the discontinuance of further sampling at which time the IEPA may require the Permittee to begin the toxicity reduction evaluation and identification as outlined below.
5. Toxicity Reduction Evaluation - Should the results of the biomonitoring program identify toxicity, the IEPA may require that the Permittee prepare a plan for toxicity reduction evaluation and identification. This plan shall be developed in accordance with Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, EPA/833B-99/002, and shall include an evaluation to determine which chemicals have a potential for being discharged in the plant wastewater, a monitoring program to determine their presence or absence and to identify other compounds which are not being removed by treatment, and other measures as appropriate. The Permittee shall submit to the IEPA its plan for toxicity reduction evaluation within ninety (90) days following notification by the IEPA. The Permittee shall implement the plan within ninety (90) days or other such date as contained in a notification letter received from the IEPA.

The IEPA may modify this Permit during its term to incorporate additional requirements or limitations based on the results of the biomonitoring. In addition, after review of the monitoring results, the IEPA may modify this Permit to include numerical limitations for specific toxic pollutants. Modifications under this condition shall follow public notice and opportunity for hearing.

SPECIAL CONDITION 13. Discharge Number 009 is an emergency high level bypass. Discharges from this overflow, other than when the Mississippi River is at or above 25-year flood elevation and when 5:1 dilution exists in Wood River Creek, are subject to the following conditions:

- (1) Definitions
 - (i) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

Special Conditions

- (ii) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- (2) Bypass not exceeding limitations. The Permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if at least a 5:1 dilution ratio is maintained in Wood River Creek and if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (3) and (4) of this section.
- (3) Notice
- (i) Anticipated bypass. If the Permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
 - (ii) Unanticipated bypass. The Permittee shall submit notice of an unanticipated bypass as required in Standard Condition 12(e) of this Permit (24-hour notice).
- (4) Prohibition of bypass. Bypass is prohibited, and the IEPA may take enforcement action against a Permittee for bypass, unless:
- (i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (ii) There was no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (iii) The Permittee submitted notices as required under Standard Condition 12(e) of this Permit.
- (5) Emergency Bypass when discharging, shall be monitored daily by grab sample for BOD₅ and Suspended Solids. The Permittee shall submit the monitoring results on Discharge Monitoring Report forms using one such form for each month in which bypassing occurs. The Permittee shall specify the number of discharges per month that occur and shall report this number in the quantity daily maximum column. The Permittee shall report the highest concentration value of BOD₅ and Suspended Solids discharged in the concentration daily maximum column.

SPECIAL CONDITION 14. For the duration of this Permit, the Permittee shall determine the quantity of sludge produced by the treatment facility in dry tons or gallons with average percent total solids analysis. The Permittee shall maintain adequate records of the quantities of sludge produced and have said records available for IEPA inspection. The Permittee shall submit to the IEPA, at a minimum, a semi-annual summary report of the quantities of sludge generated and disposed of, in units of dry tons or gallons (average total percent solids) by different disposal methods including but not limited to application on farmland, application on reclamation land, landfilling, public distribution, dedicated land disposal, sod farms, storage lagoons or any other specified disposal method. Said reports shall be submitted to the IEPA by January 31 and July 31 of each year reporting the preceding January thru June and July thru December interval of sludge disposal operations.

Duty to Mitigate. The Permittee shall take all reasonable steps to minimize any sludge use or disposal in violation of this Permit.

Sludge monitoring must be conducted according to test procedures approved under 40 CFR 136 unless otherwise specified in 40 CFR 503, unless other test procedures have been specified in this Permit.

Planned Changes. The Permittee shall give notice to the IEPA on the semi-annual report of any changes in sludge use and disposal.

The Permittee shall retain records of all sludge monitoring, and reports required by the Sludge Permit as referenced in Standard Condition 23 for a period of at least five (5) years from the date of this Permit.

If the Permittee monitors any pollutant more frequently than required by the Sludge Permit, the results of this monitoring shall be included in the reporting of data submitted to the IEPA.

Special Conditions

Monitoring reports for sludge shall be reported on the form titled "Sludge Management Reports" to the following address:

Illinois Environmental Protection Agency
Bureau of Water
Compliance Assurance Section
Mail Code #19
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

SPECIAL CONDITION 15.

AUTHORIZATION OF
COMBINED SEWER AND TREATMENT PLANT DISCHARGES

The IEPA has determined that at least a portion of the collection system consists of combined sewers. References to the collection system and the sewer system refer only to those parts of the system which are owned and operated by the Permittee unless otherwise indicated. The Permittee is authorized to discharge from the overflow(s)/bypass(es) listed below provided the diversion structure is located on a combined sewer and the following terms and conditions are met:

<u>Discharge Number</u>	<u>Location</u>	<u>Receiving Water</u>
002	Shields Valley	Mississippi River (through impoundment area)
003	Central Avenue	Mississippi River (through impoundment area)
004	Piasa Street	Mississippi River (Pool of Lock & Dam #26)
007	Turner Street	Mississippi River (Pool of Lock & Dam #26)

Treatment Requirements

1. All combined sewer overflows and treatment plant bypasses shall be given sufficient treatment to prevent pollution and the violation of applicable water quality standards. Sufficient treatment shall consist of the following:
 - a. Treatment as described in PCB R82-7 and dated May 19, 1988 shall be provided. The terms and conditions of this Board Order are hereby incorporated by reference as if fully set forth herein; and,
 - b. Any additional treatment, necessary to comply with applicable water quality standards and the federal Clean Water Act, including any amendments made by the Wet Weather Water Quality Act of 2000.
2. All CSO discharges authorized by this Permit shall be treated, in whole or in part, to the extent necessary to prevent accumulations of sludge deposits, floating debris and solids in accordance with 35 Ill. Adm. Code 302.203 and to prevent depression of oxygen levels below the applicable water quality standards.
3. Overflows during dry weather are prohibited. Dry weather overflows shall be reported to the IEPA pursuant to Standard Condition 12(e) of this Permit (24 hour notice).
4. The collection system shall be operated to optimize transport of wastewater flows and to minimize CSO discharges.
5. The treatment system shall be operated to maximize treatment of wastewater flows.

Nine Minimum Controls

6. The Permittee shall comply with the nine minimum controls contained in the National CSO Control Policy published in the Federal Register on April 19, 1994. The nine minimum controls are:
 - a. Proper operation and maintenance programs for the sewer system and the CSOs (Compliance with this Item shall be met through the requirements imposed by Paragraph 8 of this Special Condition);
 - b. Maximum use of the collection system for storage (Compliance with this Item shall be met through the requirements imposed by Paragraphs 1, 4, and 8 of this Special Condition);
 - c. Review and modification of pretreatment requirements to assure CSO impacts are minimized (Compliance with this Item shall be met through the requirements imposed by Paragraph 9 of this Special Condition);
 - d. Maximization of flow to the POTW for treatment (Compliance with this Item shall be met through the requirements imposed by Paragraphs 4, 5, and 8 of this Special Condition);

Special Conditions

- e. Prohibition of CSOs during dry weather (Compliance with this Item shall be met through the requirements imposed by Paragraph 3 of this Special Condition);
- f. Control of solids and floatable materials in CSOs (Compliance with this Item shall be met through the requirements imposed by Paragraphs 2 and 8 of this Special Condition);
- g. Pollution prevention programs which focus on source control activities (Compliance with this Item shall be met through the requirements imposed by Paragraph 6 of this Special Condition, **See Below**);
- h. Public notification to ensure that citizens receive adequate information regarding CSO occurrences and CSO impacts (Compliance with this Item shall be met through Paragraphs 7 and 12 of this Special Condition); and,
- i. Monitoring to characterize impacts and efficiency of CSO controls (Compliance with this Item shall be met through the requirements imposed by Paragraphs 10 and 11 of this Special Condition).

A pollution prevention plan (PPP) shall be developed by the Permittee unless one has already been prepared for this collection system. Any previously-prepared PPP shall be reviewed, and revised if necessary, by the Permittee to address the items contained in Chapter 8 of the U.S. EPA guidance document, Combined Sewer Overflows, Guidance For Nine Minimum Controls, and any items contained in previously-sent review documents from the IEPA concerning the PPP. Combined Sewer Overflows, Guidance For Nine Minimum Controls is available on line at <http://www.epa.gov/npdes/pubs/owm0030.pdf>. The PPP (or revised PPP) shall be presented to the general public at a public information meeting conducted by the Permittee within nine (9) months of the effective date of this Permit. The Permittee shall submit documentation that the pollution prevention plan complies with the requirements of this Permit and that the public information meeting was held. Such documentation shall be submitted to the IEPA within twelve (12) months of the effective date of this Permit and shall include a summary of all significant issues raised by the public, the Permittee's response to each issue, and two (2) copies of the "CSO Pollution Prevention Plan Certification" one (1) with original signatures. This certification form is available online at <http://www.epa.state.il.us/water/permits/waste-water/forms/cso-pol-prev.pdf>. Following the public meeting, the Permittee shall implement the pollution prevention plan within one (1) year and shall maintain a current pollution prevention plan, updated to reflect system modifications, on file at the sewage treatment works or other acceptable location and made available to the public. The pollution prevention plan shall be submitted to the IEPA upon written request.

Sensitive Area Considerations

- 7. Pursuant to Section II.C.3 of the federal CSO Control Policy of 1994, sensitive areas are any water likely to be impacted by a CSO discharge which meet one or more of the following criteria: (1) designated as an Outstanding National Resource Water; (2) found to contain shellfish beds; (3) found to contain threatened or endangered aquatic species or their habitat; (4) used for primary contact recreation; or, (5) within the protection area for a drinking water intake structure.

The IEPA has tentatively determined that none of the outfalls listed in this Special Condition discharge to sensitive areas. However, if information becomes available that causes the IEPA to reverse this determination, the IEPA will notify the Permittee in writing. Within three (3) months of the date of notification, or such other date contained in the notification letter, the Permittee shall submit two (2) copies of either a schedule to relocate, control, or treat discharges from these outfalls. If none of these options are possible, the Permittee shall submit adequate justification at that time as to why these options are not possible. Such justification shall be in accordance with Section II.C.3 of the National CSO Control Policy.

Operational and Maintenance Plans

- 8. The IEPA reviewed and conditionally accepted a CSO operational and maintenance plan "CSO O&M plan" on August 1, 1997 prepared for this sewerage system. The Permittee shall review and revise, if needed, the CSO O&M plan to reflect system changes.

The CSO O&M plan shall be presented to the general public at a public information meeting conducted by the Permittee within nine (9) months of the effective date of this Permit. The Permittee shall submit documentation that the CSO O&M plan complies with the requirements of this Permit and that the public information meeting was held. Such documentation shall be submitted to the IEPA within twelve (12) months of the effective date of this Permit and shall include a summary of all significant issues raised by the public, the Permittee's response to each issue, and two (2) copies of the "CSO Operational Plan Checklist and Certification", one (1) with original signatures. Copies of the "CSO Operational Plan Checklist and Certification" are available online at <http://www.epa.state.il.us/water/permits/waste-water/forms/cso-checklist.pdf>. Following the public meeting, the Permittee shall implement the CSO O&M plan within one (1) year and shall maintain a current CSO O&M plan, updated to reflect system modifications, on file at the sewage treatment works or other acceptable location and made available to the public. The CSO O&M plan revisions shall be submitted to the IEPA one (1) month from the revision date.

The objectives of the CSO O&M plan are to reduce the total loading of pollutants and floatables entering the receiving stream and to ensure that the Permittee ultimately achieves compliance with water quality standards. These plans, tailored to the local government's collection and waste treatment systems, shall include mechanisms and specific procedures where applicable to

Special Conditions

ensure:

- a. Collection system inspection on a scheduled basis;
- b. Sewer, catch basin, and regulator cleaning and maintenance on a scheduled basis;
- c. Inspections are made and preventive maintenance is performed on all pump/lift stations;
- d. Collection system replacement, where necessary;
- e. Detection and elimination of illegal connections;
- f. Detection, prevention, and elimination of dry weather overflows;
- g. The collection system is operated to maximize storage capacity and the combined sewer portions of the collection system are operated to delay storm entry into the system; and,
- h. The treatment and collection systems are operated to maximize treatment.

Sewer Use Ordinances

9. The Permittee, within six (6) months of the effective date of this Permit, shall review and where necessary, modify its existing sewer use ordinance to ensure it contains provisions addressing the conditions below. If no ordinance exists, such ordinance shall be developed and implemented within six (6) months from the effective date of this Permit. Upon completion of the review of the sewer use ordinance(s), the Permittee shall submit two (2) copies of a completed "Certification of Sewer Use Ordinance Review", one (1) with original signatures. Copies of the certification form can be obtained on line at <http://www.epa.state.il.us/water/permits/waste-water/forms/sewer-use.pdf>. The Permittee shall submit copies of the sewer use ordinance(s) to the IEPA upon written request. Sewer use ordinances are to contain specific provisions to:
 - a. Prohibit introduction of new inflow sources to the sanitary sewer system;
 - b. Require that new construction tributary to the combined sewer system be designed to minimize and/or delay inflow contribution to the combined sewer system;
 - c. Require that inflow sources on the combined sewer system be connected to a storm sewer, within a reasonable period of time, if a storm sewer becomes available;
 - d. Provide that any new building domestic waste connection shall be distinct from the building inflow connection, to facilitate disconnection if a storm sewer becomes available;
 - e. Assure that CSO impacts from non-domestic sources are minimized by determining which non-domestic discharges, if any, are tributary to CSOs and reviewing, and, if necessary, modifying the sewer use ordinance to control pollutants in these discharges; and,
 - f. Assure that the owners of all publicly owned systems with combined sewers tributary to the Permittee's collection system have procedures in place adequate to ensure that the objectives, mechanisms, and specific procedures given in Paragraph 8 of this Special Condition are achieved.

The Permittee shall enforce the applicable sewer use ordinances.

Long-Term Control Planning and Compliance with Water Quality Standards

10. a. Pursuant to Section 301 of the federal Clean Water Act, 33 U.S.C. § 1311 and 40 CFR § 122.4, discharges from the CSOs, including the outfalls listed in this Special Condition and any other outfall listed as a "Treated Combined Sewage Outfall", shall not cause or contribute to violations of applicable water quality standards or cause use impairment in the receiving waters. In addition, discharges from CSOs shall comply with all applicable parts of 35 Ill. Adm. Code 306.305(a), (b), (c), and (d).

Special Conditions

- b. The Long Term Control Plan (LTCP), submitted August 28, 2009 and amended May 17, 2010 and March 17, 2011 was approved April 8, 2011. The approved LTCP, once implemented, will meet the presumptive approach prescribed by Section II c.4.a.i of the federal CSO Control Policy. The implementation schedule can be found under the Summary and Compliance Dates in this CSO Special Condition (Item 14). All provisions of this Special Condition shall stay in effect prior to and after completion of construction. The permittee shall submit to this Agency for review and approval a post construction monitoring plan 1 year prior to construction completion of major control items that when completed will still result in a CSO discharge.

Monitoring, Reporting and Notification Requirements

11. The Permittee shall monitor the frequency of discharge (number of discharges per month) and estimate the duration (in hours) of each discharge from each outfall listed in this Special Condition. Estimates of storm duration and total rainfall shall be provided for each storm event.

For frequency reporting, all discharges from the same storm, or occurring within 24 hours, shall be reported as one. The date that a discharge commences shall be recorded for each outfall. Reports shall be in the form specified by the IEPA and on forms provided by the IEPA. These forms shall be submitted to the IEPA monthly with the DMRs and covering the same reporting period as the DMRs. Parameters (other than flow frequency), if required in this Permit, shall be sampled and reported as indicated in the transmittal letter for such report forms.

12. A public notification program in accordance with Section II.B.8 of the federal CSO Control Policy of 1994 shall be developed employing a process that actively informs the affected public. The program shall include at a minimum public notification of CSO occurrences and CSO impacts, with consideration given to including mass media and/or Internet notification. The Permittee shall also consider posting signs in waters likely to be impacted by CSO discharges at the point of discharge and at points where these waters are used for primary contact recreation. Provisions shall be made to include modifications of the program when necessary and notification to any additional member of the affected public. The program shall be presented to the general public at a public information meeting conducted by the Permittee. The Permittee shall conduct the public information meeting within nine (9) months of the effective date of this Permit. The Permittee shall submit documentation that the public information meeting was held, shall submit a summary of all significant issues raised by the public and the Permittee's response to each issue and shall identify any modifications to the program as a result of the public information meeting. The Permittee shall submit the public information meeting documentation to the IEPA and implement the public notification program within twelve (12) months of the effective date of this Permit. The Permittee shall submit copies of the public notification program to the IEPA upon written request.
13. If any of the CSO discharge points listed in this Special Condition are eliminated, or if additional CSO discharge points, not listed in this Special Condition, are discovered, the Permittee shall notify the IEPA in writing within one (1) month of the respective outfall elimination or discovery. Such notification shall be in the form of a request for the appropriate modification of this NPDES Permit.

Summary of Compliance Dates in this CSO Special Condition

14. The following summarizes the dates that submittals contained in this Special Condition are due at the IEPA (unless otherwise indicated):

Submission of CSO Monitoring Data (Paragraph 11)	25th of every month
Submission of Revised CSO O&M Plan (Paragraph 8)	1 month from revision date
Elimination of a CSO or Discovery of Additional CSO Locations (Paragraph 13)	1 month from discovery or elimination
Certification of Sewer Use Ordinance Review (Paragraph 9)	6 months from the effective date of this Permit
Conduct Pollution Prevention, OMP, and PN Public Information Meeting (Paragraphs, 6, 8 and 12) No Submittal Due with this Milestone	9 months from the effective date of this Permit
Submit Pollution Prevention Certification, OMP Certification, and PN Information Meeting Summary (Paragraphs, 6, 8 and 12)	12 months from the effective date of this Permit
Post Construction Compliance Monitoring Plan	1 year prior to completion of major control items still resulting in CSO discharge
Interim Progress Report	6 months from the effective date of this permit and every 6 months thereafter
CSO Long-Term Control Plan (Paragraph 10)	

Special Conditions

<u>Action Item</u>	<u>Completion Date</u>
Sewer Separation Project	
Facilities Planning and Approval	April 30, 2013
State Street Separation /design, Permitting and Contracting	April 30, 2015
State Street Separation Construction	April 30, 2016
Pissa Valley Separation Design, Permitting and Contracting	April 30, 2017
Pissa Valley Separation Construction	April 30, 2019
Shields Valley Rerouting Design, Permitting and Contracting	April 30, 2019
Shields Valley Rerouting Construction	April 30, 2020
Turner Tract Separation Design, Permitting and Contracting	April 30, 2021
Turner Tract Separation Construction	April 30, 2022
<u>Constructed Wetland Alternative</u>	
Wetland Site Evaluation Study Determining Wetland Treatment as a Viable Option	September 30, 2012
Wetland Pilot Study	April 30, 2015
Wetland Facility Planning and Approval	April 30, 2017
Wetland Design, Permitting and Contracting	April 30, 2019
Wetland Construction	April 30, 2021
<u>Screening, Pumping and Storage Alternative (SP&S)*</u>	
Wetland Site Evaluation Study Determining Wetland Treatment not a Viable Option	April 30, 2013
Facilities Planning and Approval	April 30, 2015
Central Avenue SP&S Design, Permitting and Contracting	April 30, 2017
Central Avenue SP&S Construction	April 30, 2019
Shields Valley SP&S Design, Permitting and Contracting	April 30, 2019
Shields Valley SP&S Construction	April 30, 2021

* To be initiated only upon determination that Constructed Wetland Treatment is not feasible.

All submittals listed in this Special Condition can be mailed to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Attention: CSO Coordinator, Compliance Assurance Section

All submittals hand carried shall be delivered to 1021 North Grand Avenue East.

Special Conditions

Reopening and Modifying this Permit

15. The IEPA may initiate a modification for this Permit at any time to include requirements and compliance dates which have been submitted in writing by the Permittee and approved by the IEPA, or other requirements and dates which are necessary to carry out the provisions of the Illinois Environmental Protection Act, the Clean Water Act, or regulations promulgated under those Acts. Public Notice of such modifications and opportunity for public hearing shall be provided.

SPECIAL CONDITION 16. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) Forms using one such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR Form shall be submitted with no discharge indicated.

The Permittee may choose to submit electronic DMRs (eDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the eDMR program, can be obtained on the IEPA website, <http://www.epa.state.il.us/water/edmr/index.html>.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 25th day of the following month, unless otherwise specified by the permitting authority.

Permittees not using eDMRs shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Attention: Compliance Assurance Section, Mail Code # 19

SPECIAL CONDITION 17. The Permittee shall work towards the goals of achieving no discharges from sanitary sewer overflows or basement backups and ensuring that overflows or backups, when they do occur do not cause or contribute to violations of applicable standards or cause impairment in any adjacent receiving water. In order to accomplish these goals, the Permittee shall develop and submit to the IEPA a Capacity, Management, Operations, and Maintenance (CMOM) plan within twelve (12) months of the effective date of this Permit. The Permittee may be required to construct additional sewage transport and/or treatment facilities in future permits or other enforceable documents.

The CMOM plan shall include the following elements:

- A. Measures and Activities:
1. A complete map of the collection system;
 2. Schedules, checklists, and mechanisms to ensure that preventative maintenance is performed on equipment;
 3. An assessment of the capacity of the collection and treatment system at critical junctions and immediately upstream of locations where overflows and backups occur or are likely to occur; and
 4. Identification and prioritization of structural deficiencies in the system.
- B. Design and Performance Provisions:
1. Monitor the effectiveness of CMOM;
 2. Upgrade the elements of the CMOM plan as necessary; and,
 3. Maintain a summary of CMOM activities.
- C. Overflow Response Plan:
1. Know where overflows and backups occur; and,
 2. Respond to each overflow or backup to determine additional actions such as clean up.
- D. System Evaluation Plan.
- E. Reporting and Monitoring Requirements.

SPECIAL CONDITION 18. The provisions of 40 CFR Section 122.41(m) & (n) are applicable and are hereby incorporated by reference.

Special Conditions

SPECIAL CONDITION 19. Alton performed a ZID and mixing zone study for ammonia titled "Mixing Zone for Evaluation, Mississippi River near Alton, Illinois" dated August 1994. The zone of initial dilution for ammonia is 42 feet across from the end-of-pipe and 42 feet downstream from this point. Within the ZID, 16.3:1 dilution is afforded. A mixing zone is recognized for ammonia with dimensions extending 130 feet across from the end of pipe and 577 feet downstream from this point. Within the mixing zone 71.2:1 dilution is offered.