

NPDES Permit No. IL0071030

Notice No. SKT:14091701.bah

Public Notice Beginning Date: **October 31, 2014**

Public Notice Ending Date: **December 1, 2014**

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:  
Stratford West Association, Inc.  
West Adams Road  
P.O. Box 37  
Macomb, Illinois 61455

Name and Address of Facility:  
Stratford West Apartments - STP  
One Heath Court  
Macomb, Illinois 61455  
(McDonough 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 indicate 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 Surinder Tandon 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 wastewater for the Stratford West Apartments.

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, Unnamed tributary of LaMoine River is 0 cfs.

The design average flow (DAF) for the facility is 0.0045 million gallons per day (MGD) and the design maximum flow (DMF) for the facility is 0.005265 MGD. Treatment consists of three septic tanks in series followed by a 5000 gallon recirculation tank, then to a 40' x 44' recirculating sand filter, and finally to a manhole with diffused aeration and discharge to a normally dry ditch.

This Reissued Permitt does not increase the facility's DAF, DMF, concentration limits, and/or load limits of the old terminated permit.

Pursuant to the waiver provisions authorized by 40 CFR § 123.24, this draft permit is within the class, type, and size for which the Regional Administrator, Region V, has waived his right to review, object, or comment on this draft permit action.

This Permit recognizes and continues the year-round disinfection exemption approved by the IEPA on July 13, 1995 and revalidated on September 9, 2014 and included in the past NPDES permit actions since that date. It is the IEPA's tentative decision that under Illinois Pollution Control Board regulations, the following reach of waterbody is not classified for primary contact use activities and is not subject to the fecal coliform water quality standard of 35 Ill. Adm. Code 302.209.

This draft permit does not contain requirements for disinfection of the discharge from discharge numbers(s) 001. Unnamed tributary of the East Fork LaMoine River from the point of discharge to the confluence of East Fork LaMoine River, has been determined to be unsuited to support primary contact activities (swimming) due to physical, hydrologic or geographic configuration. Anyone knowing of primary contact activities occurring within this water segment is invited to submit comments to the IEPA. Comments should give the nature of the activities (i.e swimming, fishing, canoeing, etc.), the location and months of the year when these activities have been observed. The IEPA is also interested in obtaining information on the proximity of residential dwellings and the accessibility of the public to this water segment. Anyone with such information is asked to submit comments to the IEPA on this draft permit action. Instructions for submitting comments are contained earlier in this document.

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

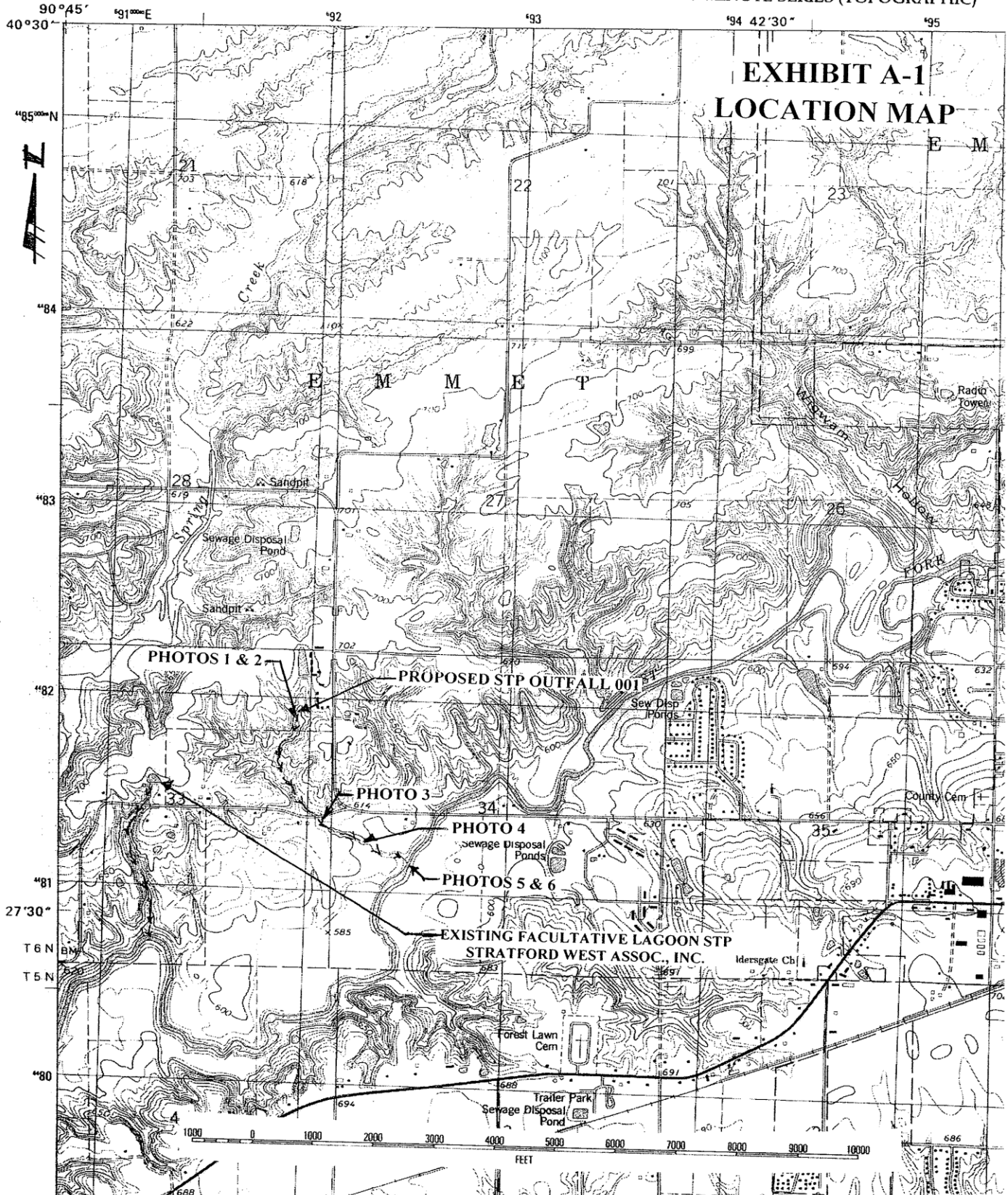
<u>Discharge Number</u>	<u>Receiving Stream</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Stream Classification</u>	<u>Integrity Rating</u>
001	Unnamed tributary of LaMoine River	40° 28' 06" North	90° 44' 07" West	General Use	Not Rated

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



U.S. DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY

MACOMB QUADRANGLE  
ILLINOIS-MC DONOUGH CO.  
7.5-MINUTE SERIES (TOPOGRAPHIC)



**EXHIBIT A-1  
LOCATION MAP**

The unnamed tributary of the East Fork LaMoine River, tributary to Waterbody Segment DGL-04, is not listed on the draft 2014 Illinois Integrated Water Quality Report and Section 303 (d) list of impaired waters

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

Load limits computed based on a design average flow (DAF) of 0.0045 MGD (design maximum flow (DMF) of 0.005265 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 <sub>5</sub>	0.4 (0.4)		0.8 (0.9)	10		20	35 IAC 304.120 40 CFR 133.102
Suspended Solids	0.5 (0.5)		0.9 (1.1)	12		24	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	Monitor only (May through October)						35 IAC 309.146
Chlorine Residual						0.05	35 IAC 302.208
Ammonia Nitrogen: March-May/Sept.-Oct.	0.1 (0.1)	0.2 (0.2)	0.3 (0.4)	2.0	5.1	9.1	35 IAC 355 and 35 IAC 302
June-August	0.1 (0.1)	0.2 (0.2)	0.5 (0.6)	1.9	4.7	13.3	
Nov.-Feb.	0.2 (0.2)		0.3 (0.3)	4.0		6.9	
				Monthly Avg. not less than	Weekly Avg. not less than	Daily Minimum	
Dissolved Oxygen March-July				N/A	6.0	5.0	35 IAC 302.206
August-February				5.5	4.0	3.5	

\*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. 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.
7. The provisions of 40 CFR Section 122.41(m) & (n) are incorporated herein by reference.
8. Effluent sampling point location.
9. A requirement to monitor and a limit of 0.05 mg/L for residual chlorine when it is used.
10. Submission of semi-annual reports indicating the quantities of sludge generated and disposed.
11. Reopening of this Permit to include revised effluent limitations based on a Total Maximum Daily Load (TMDL) or other water quality study.
12. A minimum of 85% removal of CBOD<sub>5</sub> and Suspended Solids.

**Stratford West Apartments - STP -- Antidegradation Assessment  
NPDES Permit No. IL0071030**

The subject facility is proposing to replace their lagoon with a design average flow (DAF) of 0.006 MGD facility with a recirculation sand filter with a design average flow of 0.0045 MGD. This facility has had problems with a forcemain pump failing. The forcemain has now failed and untreated waste is being discharged to the unnamed tributary to the East Fork LaMoine River.

The CBOD<sub>5</sub>/TSS of the existing lagoon is 25/37 mg/L respectively. The Stratford West Apartment - STP is constructing a recirculating sand filter with an NPDES permit limit for CBOD<sub>5</sub>/TSS of 10/12 mg/L respectively. Due to the decrease in the DAF and better treatment being provided the new facility will have less loading to the environment. Since the facility is proposing to discharge to different unnamed tributary to the East Fork LaMoine River, an antidegradation assessment is needed. However, since the facility's forcemain has failed, untreated waste is currently being discharged to this unnamed tributary, and therefore a decrease in loading from the current condition will be realized.

The information in this antidegradation assessment came from the May 28, 2014 NPDES Permit Application by McClure Engineering Associates, Inc.

**Identification and Characterization of the Affected Water Body.**

The subject facility discharges to an unnamed tributary to the East Fork LaMoine River at a point where 0 cfs of flow exists upstream of the outfall during critical 7Q10 low-flow conditions. The facility has a DAF of 0.006 MGD. The unnamed tributary to the East Fork LaMoine River is classified as a General Use Water. The unnamed tributary to the East Fork LaMoine River is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*, nor is it given an integrity rating in that document. The unnamed tributary to the East Fork LaMoine River, tributary to Waterbody Segment, DGL-04, is not listed on the draft 2014 Illinois Integrated Water Quality Report and Section 303(d) List since it has not been assessed. The unnamed tributary to the East Fork LaMoine River is not subject to enhanced dissolved oxygen standards.

The USGS Illinois Streamstats basin characteristics program gives a watershed size of 0.04 square miles at the discharge point on the unnamed tributary of East Fork LaMoine River. According to the Illinois State Water Survey, the unnamed tributary of East Fork LaMoine River in the area of the proposed discharge is likely to be a 7Q1.1 zero flow stream. In this region of Illinois, 7Q1.1 zero flow streams are streams with a watershed area of 3 square miles or less. These streams will exhibit no flow for at least a continuous seven day period nine out of ten years. Aquatic life communities in these headwater streams are tolerant of the effects of drying. Depending on the rainfall received before biological surveys, either a very limited aquatic life community, or no community at all would be found. Given this flow regime, no additional biological characterization is required.

### **Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses.**

The treated domestic waste that characterizes this proposed effluent would be similar to other treated effluents of purely domestic origin. Ammonia limits in the permit will be set at water quality standards; however, ammonia loading to the receiving stream will increase over existing background levels. Biochemical oxygen demand (BOD) permit limits will be set at the most stringent effluent standards applicable in 35 IAC 304.120. The stream will nonetheless experience an increase in loading due to the new effluent discharge.

Additionally, loading of nutrients will increase to the receiving stream as a result of this effluent. The Agency is developing state water quality standards that will formulate the basis for future nutrient management strategies. Upon adoption of state standards and development of a management strategy, there may be nutrient reduction requirements imposed on this source. At the present time however, the incremental nutrient loading anticipated to result from this project is not expected to increase algae or other noxious plant growth, diminish the present aquatic community or otherwise aggravate existing stream conditions. Therefore no permit limits for nutrients are recommended at this time. The Illinois Nutrient Standards Workgroup has been convened to develop nutrient standards and will strive to keep NPDES permitted dischargers aware of its findings, allowing them to anticipate future nutrient permit limits.

### **Fate and Effect of Parameters Proposed for Increased Loading.**

The BOD and ammonia discharged by this facility will decay into simpler and harmless byproducts by naturally occurring organisms in the receiving stream. Some of the nitrogen originating in the ammonia will remain in the stream in the form of nitrates or organic nitrogen. The nutrients discharged will be absorbed by aquatic or riparian terrestrial plants or will remain in the stream. Ammonia and dissolved oxygen standards will be met in the effluent prior to discharge to the receiving stream.

### **Purpose and Social & Economic Benefits of the Proposed Activity.**

This emergency proposed project will provide sewage treatment facilities for the Stratford West Apartments and will eliminate potential health hazards associated with the broken forcemain.

### **Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation.**

The plans for construction of a recirculating sand filter are consistent with appropriate technology for this size and type of project. Treatment plant specifications have been selected to avoid or minimize environmental impacts. They also represent an economically reasonable design taking into consideration both initial capital costs and ongoing maintenance expenses.

### **Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities.**

On August 25, 2014, the IDNR EcoCAT web-based tool was used and indicated that there were no aquatic endangered/threatened species present in the vicinity of the discharge. The IDNR EcoCAT web-based tool did not terminate the consultation because of the nearby presence of Illinois Natural Area Inventory (INAI) sites. However, IDNR evaluated the submittal and determined that impacts to the protected resources are unlikely. IDNR terminated the consultation request on August 26, 2014.

### **Agency Conclusion.**

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on the information available to the Agency at the time the draft permit was written. We tentatively find that the proposed activity will result in the attainment of water quality standards; that all existing uses of the receiving stream will be maintained; that all technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; and that this activity will benefit the community at large by providing sewage treatment for Stratford West Apartments. Comments received during the NPDES permit public notice period will be evaluated before a final decision is made by the Agency.

NPDES Permit No. IL0071030

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:

Stratford West Association, Inc.  
West Adams Road  
P.O. Box 37  
Macomb, Illinois 61455

Facility Name and Address:

Stratford West Apartments - STP  
One Heath Court  
Macomb, Illinois 61455  
(McDonough County)

Receiving Waters: Unnamed tributary of LaMoine 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

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## NPDES Permit No. IL0071030

Effluent Limitations, Monitoring, and Reporting

FINAL

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

Load limits computed based on a design average flow (DAF) of 0.0045 MGD (design maximum flow (DMF) of 0.005265 MGD).

From the effective 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 <sub>5</sub> *****	0.4 (0.4)		0.8 (0.9)	10		20	1 Day/Month	Composite
Suspended Solids***	0.5 (0.5)		0.9 (1.1)	12		24	1 Day/Month	Composite
pH	Shall be in the range of 6 to 9 Standard Units						1 Day/Month	Grab
Fecal Coliform****	Monitor only (May through October)						1 Day/Month	Grab
Chlorine Residual						0.05	*****	Grab
Ammonia Nitrogen: As (N) March-May/Sept.-Oct.	0.1 (0.1)	0.2 (0.2)	0.3 (0.4)	2.0	5.1	9.1	1 Day/Month	Composite
June-August	0.1 (0.1)	0.2 (0.2)	0.5 (0.6)	1.9	4.7	13.3	1 Day/Month	Composite
Nov.-Feb.	0.2 (0.2)		0.3 (0.3)	4.0		6.9	1 Day/Month	Composite
				Monthly Average not less than	Weekly Average not less than	Daily Minimum		
Dissolved Oxygen March-July				N/A	6.0	5.0	1 Day/Month	Grab
August-February				5.5	4.0	3.5	1 Day/Month	Grab

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

\*\*Carbonaceous BOD<sub>5</sub> (CBOD<sub>5</sub>) testing shall be in accordance with 40 CFR 136.

\*\*\*The 30-day average percent removal shall not be less than 85%. See Special Condition 12.

\*\*\*\*Fecal Coliform shall be monitored May through October. Which sample results reported as a daily maximum value on the DMR.

\*\*\*\*\*See Special Condition 9.

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

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

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

Dissolved oxygen shall be reported on the DMR as a minimum value.



NPDES Permit No. IL0071030

Influent Monitoring, and Reporting

The influent to the plant shall be monitored as follows:

<u>Parameter</u>	<u>Sample Frequency</u>	<u>Sample Type</u>
Flow (MGD)	Continuous	
BOD <sub>5</sub>	1 Day/Month	Composite
Suspended Solids	1 Day/Month	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.

BOD<sub>5</sub> 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 and regulations. 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 4 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.

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. 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 (NetDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the NetDMR program, can be obtained on the IEPA website, <http://www.epa.state.il.us/water/net-dmr/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 Net-DMRs 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  
Attention: Compliance Assurance Section, Mail Code # 19  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

SPECIAL CONDITION 7. The provisions of 40 CFR Section 122.41(m) & (n) are incorporated herein by reference.

SPECIAL CONDITION 8. 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 9. For Discharge No. 001, any use of chlorine to control slime growths, odors or as an operational control, etc. shall not exceed the limit of 0.05 mg/L (daily maximum) total residual chlorine in the effluent. Sampling is required on a daily grab basis during the chlorination process. Reporting shall be submitted on the DMR's on a monthly basis.

SPECIAL CONDITION 10. 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.

Special Conditions

The Permittee shall retain records of all sludge monitoring, and reports required by the Sludge Permit as referenced in Standard Condition 25 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.

The Permittee shall comply with existing federal regulations governing sewage sludge use or disposal and shall comply with all existing applicable regulations in any jurisdiction in which the sewage sludge is actually used or disposed.

The Permittee shall comply with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish the standards for sewage sludge use or disposal even if the permit has not been modified to incorporate the requirement.

The Permittee shall ensure that the applicable requirements in 40 CFR Part 503 are met when the sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator.

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 62794-927

SPECIAL CONDITION 11. This Permit may be modified to include alternative or additional final effluent limitations pursuant to an approved Total Maximum Daily Load (TMDL) Study or upon completion of an alternate Water Quality Study.

SPECIAL CONDITION 12. Final Conditions - For Discharge No. 001 BOD<sub>5</sub> and Suspended Solids (85% removal required): The arithmetic mean of the values for effluent samples collected in a period of one calendar month shall not exceed 15 percent of the arithmetic mean of the values for influent samples collected at approximately the same time during the same period, except during those periods when the influent is diluted because of high flows if the tributary sewer system is combined. The percent removal need not be reported to the IEPA on DMR's but influent and effluent data must be available, as required elsewhere in this Permit, for IEPA inspection and review. For measuring compliance with this requirement, 5 mg/L shall be added to the effluent CBOD<sub>5</sub> concentration to determine the effluent BOD<sub>5</sub> concentration.

