NPDES Permit No. IL0038202

Notice No. FRB:14081301.bah

Public Notice Beginning Date: **October 7, 2014**

Public Notice Ending Date: **November 6, 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:

Illinois American Water Company
1000 Internationale Parkway
Woodridge, Illinois 60517

Name and Address of Facility:

IAWC - Terra Cotta STP
3703 South Route 31
Crystal Lake, Illinois 60012
(McHenry 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 Francis Burba 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 Village of Prairie Grove.

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, Sleepy Hollow Creek is 0.62 cfs.

The design average flow (DAF) for the existing facility is 0.1 million gallons per day (MGD) and the design maximum flow (DMF) for the facility is 0.25 MGD. The design average flow (DAF) for the new wastewater treatment plant is 1.0 MGD and the design maximum flow (DMF) for the facility is 3.0 MGD. The new wastewater treatment plant will be utilized for pre-treatment for the existing plant until such time as the flows at the existing facility reach 0.1 MGD. Treatment consists of screening/comminution, activated sludge, secondary settling, sand filtration, seasonal UV disinfection and sludge treatment.

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

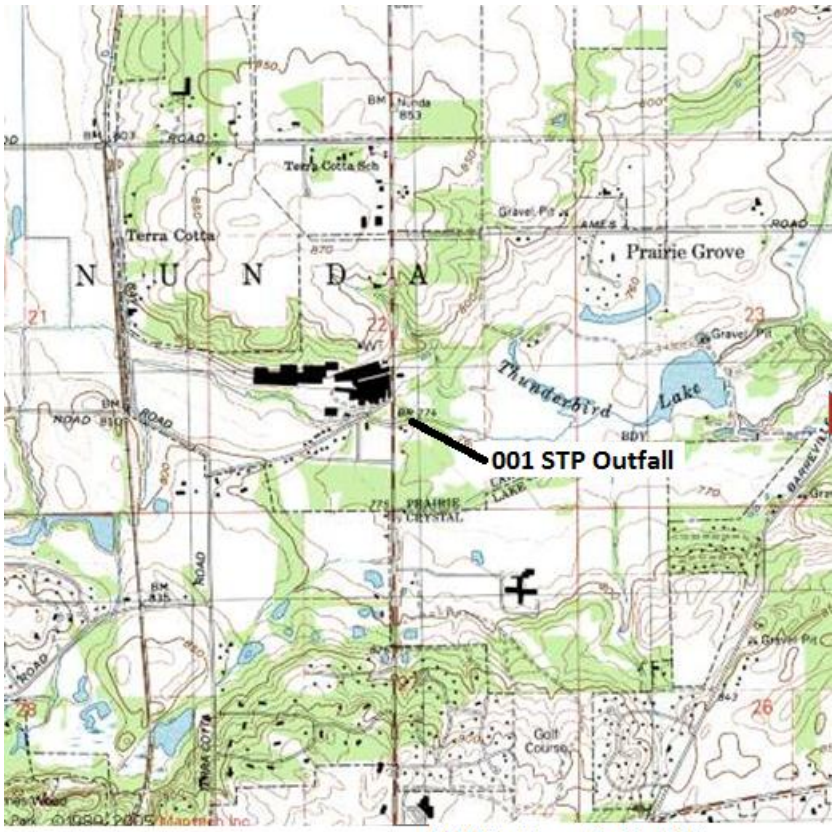
This Permit recognizes and continues the year-round disinfection exemption approved by the IEPA on March 18, 1997 and included in past NPDES permit actions since that date. It is the IEPA's tentative decision that under Illinois Pollution Control Board regulations, the following reach of waterbody is 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 (existing plant). Sleepy Hollow Creek from the point of discharge to the confluence of Thunderbird Lake 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 existing discharge(s) which is located in McHenry County, Illinois. The following information identifies the discharge point, receiving stream and stream classifications:

Discharge Number	Receiving Stream	Latitude	Longitude	Stream Classification	Integrity Rating
001	Sleepy Hollow Creek	42° 16′ 25″ North	88° 17′ 09″ West	General Use	Not Rated

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



IAWC - Terra Cotta STP
NPDES Permit No. IL0038202
McHenry County

The stream segment(s), Sleepy Hollow Creek (no segment code), receiving the discharge from outfall(s) 001 is not on the 303 (d) list of impaired waters. Sleepy Hollow Creek is tributary to Thunderbird Lake (no lake code). Thunderbird Lake is also not on the 303 (d) list of impaired waters.

The next downstream segment, DT-22 Fox River, is impaired.

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

Potential Causes	Uses Impaired
Alterations in stream-side vegetative cover (non-pollutant), other flow regime alterations (non-pollutant), chloride, copper, aquatic algae (non-pollutant) and sedimentation/siltation	Aquatic life

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 (Existing Plant)

Load limits computed based on a design average flow (DAF) of 0.1 MGD (design maximum flow (DMF) of 0.25 MGD).

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

	LOAD LIMITS lbs/day DAF (DMF)*			CONCENTRATION LIMITS mg/L			
Parameter	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Regulation
$CBOD_5$**	8.3 (21)		17 (42)	10		20	35 IAC 304.120 40 CFR 133.102
Suspended Solids**	10 (25)		20 (50)	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 304.121
Chlorine Residual						0.05	35 IAC 302.208
Barium	---		4.2 (10)	---		5.0	35 IAC 302.208
Cadmium	0.0022 (0.0054)		0.027 (0.067)	0.0026		0.032	35 IAC 302.208
Copper	0.024 (0.060)		0.040 (0.10)	0.029		0.048	35 IAC 302.208
Nickel	0.010 (0.025)		0.17 (0.42)	0.012		0.203	35 IAC 302.208
Silver	---		0.0042 (0.010)	---		0.005	35 IAC 302.208
Zinc	0.065 (0.16)		0.25 (0.63)	0.078		0.301	35 IAC 302.208
Total Phosphorus (as P)	Monitor only						35 IAC 309.146
Ammonia Nitrogen: March-May/Sept.-Oct.	1.3 (3.1)	3.2 (7.9)	3.9 (9.8)	1.5	3.8	4.7	35 IAC 355 and 35 IAC 302
June-August	0.83 (2.1)	2.1 (5.2)	4.7 (12)	1.0	2.5	5.6	
Nov.-Feb.	2.8 (7.1)		2.2 (5.4)	3.4		2.6	
				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 x (Design Average and/or Maximum Flow in MGD) x (Applicable Concentration in mg/L).

** BOD_5 and Suspended Solids (85% removal required): In accordance with 40 CFR 133, the 30-day average percent removal shall not be less than 85 percent except as provided in Sections 133.103 and 133.105.

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 (New Plant)

Load limits computed based on a design average flow (DAF) of 1.0 MGD (design maximum flow (DMF) of 3.0 MGD).

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

	LOAD LIMITS lbs/day DAF (DMF)*			CONCENTRATION LIMITS mg/L			
Parameter	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Regulation
$CBOD_5$**	83 (250)		167 (500)	10		20	35 IAC 304.120 40 CFR 133.102
Suspended Solids**	100 (300)		200 (600)	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	Daily Maximum shall not exceed 400 per 100 mL (May through October)						35 IAC 304.121
Chlorine Residual						0.05	35 IAC 302.208
Barium	---		42 (125)	---		5.0	35 IAC 302.208
Cadmium	0.022 (0.065)		0.27 (0.80)	0.0026		0.032	35 IAC 302.208
Copper	0.24 (0.73)		0.40 (1.2)	0.029		0.048	35 IAC 302.208
Nickel	0.10 (0.30)		1.7 (5.1)	0.012		0.203	35 IAC 302.208
Silver	---		0.042 (0.13)	---		0.005	35 IAC 302.208
Zinc	0.65 (2.0)		2.5 (7.5)	0.078		0.301	35 IAC 302.208
Ammonia Nitrogen: March-May/Sept.-Oct.	13 (38)	32 (95)	39 (118)	1.5	3.8	4.7	35 IAC 355 and 35 IAC 302
June-August	8.3 (25)	21 (63)	47 (140)	1.0	2.5	5.6	
Nov.-Feb.	28 (85)		22 (65)	3.4		2.6	
Total Nitrogen	Monitor Only						35 IAC 309.146
Dissolved Phosphorus	Monitor Only						35 IAC 309.146
Nitrate/Nitrite	Monitor Only						35 IAC 309.146
Total Kjeldahl Nitrogen (TKN)	Monitor Only						35 IAC 309.146
Alkalinity	Monitor Only						35 IAC 309.146
Temperature	Monitor Only						35 IAC 309.146
Total Phosphorus (as P)	8.3 (25)			1.0			35 IAC 304.123
				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 x (Design Average and/or Maximum Flow in MGD) x (Applicable Concentration in mg/L).

** BOD_5 and Suspended Solids (85% removal required): In accordance with 40 CFR 133, the 30-day average percent removal shall not be less than 85 percent except as provided in Sections 133.103 and 133.105.

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. Seasonal fecal coliform limits.

11. 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.

12. A requirement for biomonitoring of the effluent.

13. Submission of semi annual reports indicating the quantities of sludge generated and disposed.

14. Reopening of this Permit to include revised effluent limitations based on a Total Maximum Daily Load (TMDL) or an approved Fox River Water Quality Study

15. Total Nitrogen Monitoring.

16. A requirement for participation in the Fox River Study Group

17. Monitoring for total phosphorus, dissolved phosphorus, nitrate/nitrite, total kjeldahl nitrogen (TKN), ammonia, total nitrogen (calculated), alkalinity and temperature once a month.

18. Notify the IEPA when flows at the existing facility reach 0.1 MGD, and the existing treatment plant is taken out of service.

NPDES Permit No. IL0038202

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:

Illinois American Water Company
1000 Internationale Parkway
Woodridge, Illinois 60517

Facility Name and Address:

IAWC - Terra Cotta STP
3703 South Route 31
Crystal Lake, Illinois 60012
(McHenry County)

Receiving Waters: Sleepy Hollow Creek

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:FRB:14-81301.bah

NPDES Permit No. IL0038202

Effluent Limitations, Monitoring, and Reporting

FINAL

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

Load limits computed based on a design average flow (DAF) of 0.1 MGD (design maximum flow (DMF) of 0.25 MGD).

From the effective date of this Permit until the flows reach 0.1 MGD and the new plant becomes operational or expiration date whichever comes first, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

	LOAD LIMITS lbs/day DAF (DMF)*			CONCENTRATION LIMITS mg/L				
Parameter	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Sample Frequency	Sample Type
Flow (MGD)							Continuous	
$CBOD_5$**[1]	8.3 (21)		17 (42)	10		20	1 Day/Month	Composite
Suspended Solids[1]	10 (25)		20 (50)	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
Barium	---		4.2 (10)	---		5.0	1 Day/Month	Composite
Cadmium	0.0022 (0.0054)		0.027 (0.067)	0.0026		0.032	1 Day/Month	Composite
Copper	0.024 (0.060)		0.040 (0.10)	0.029		0.048	1 Day/Month	Composite
Nickel	0.010 (0.025)		0.17 (0.42)	0.012		0.203	1 Day/Month	Composite
Silver	---		0.0042 (0.010)	---		0.005	1 Day/Month	Composite
Zinc	0.065 (0.16)		0.25 (0.63)	0.078		0.301	1 Day/Month	Composite
Total Phosphorus (as P)	Monitor only						1 Day/Month	Composite
Ammonia Nitrogen: As (N) March-May/Sept.-Oct.	1.3 (3.1)	3.2 (7.9)	3.9 (9.8)	1.5	3.8	4.7	1 Day/Month	Composite
June-August	0.83 (2.1)	2.1 (5.2)	4.7 (12)	1.0	2.5	5.6	1 Day/Month	Composite
Nov.-Feb.	2.8 (7.1)		2.2 (5.4)	3.4		2.6	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_5 ($CBOD_5$) testing shall be in accordance with 40 CFR 136.
***See Special Condition 9.

[1] BOD_5 and Suspended Solids (85% removal required): In accordance with 40 CFR 133, the 30-day average percent removal shall not be less than 85 percent except as provided in Sections 133.103 and 133.105. The percent removal need not be reported to the IEPA on DMRs 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 $CBOD_5$ concentration to determine the effluent BOD_5 concentration.

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

NPDES Permit No. IL0038202

Effluent Limitations, Monitoring, and Reporting

FINAL

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

Load limits computed based on a design average flow (DAF) of 1.0 MGD (design maximum flow (DMF) of 3.0 MGD).

From the start of operation of the new wastewater treatment plant until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

	LOAD LIMITS lbs/day DAF (DMF)*			CONCENTRATION LIMITS mg/L				
Parameter	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Sample Frequency	Sample Type
Flow (MGD)							Continuous	
$CBOD_5$**[1]	83 (250)		167 (500)	10		20	3 Days/Week	Composite
Suspended Solids[1]	100 (300)		200 (600)	12		24	3 Days/Week	Composite
pH	Shall be in the range of 6 to 9 Standard Units						3 Days/Week	Grab
Fecal Coliform***	Daily Maximum shall not exceed 400 per 100 mL (May through October)						3 Days/Week	Grab
Chlorine Residual						0.05	****	Grab
Barium	---		42 (125)	---		5.0	3 Days/Week	Composite
Cadmium	0.022 (0.065)		0.27 (0.80)	0.0026		0.032	3 Days/Week	Composite
Copper	0.24 (0.73)		0.40 (1.2)	0.029		0.048	3 Days/Week	Composite
Nickel	0.10 (0.30)		1.7 (5.1)	0.012		0.203	3 Days/Week	Composite
Silver	---		0.042 (0.13)	---		0.005	3 Days/Week	Composite
Zinc	0.65 (2.0)		2.5 (7.5)	0.078		0.301	3 Days/Week	Composite
Ammonia Nitrogen: As (N) March-May/Sept.-Oct.	13 (38)	32 (95)	39 (118)	1.5	3.8	4.7	3 Days/Week	Composite
June-August	8.3 (25)	21 (63)	47 (140)	1.0	2.5	5.6	3 Days/Week	Composite
Nov.-Feb.	28 (85)		22 (65)	3.4		2.6	3 Days/Week	Composite
Total Nitrogen	Monitor Only						1 Day/Month	Composite
Dissolved Phosphorus	Monitor Only						1 Day/Month	Composite
Nitrate/Nitrite	Monitor Only						1 Day/Month	Grab
Total Kjeldahl Nitrogen (TKN)	Monitor Only						1 Day/Month	Grab
Alkalinity	Monitor Only						1 Day/Month	Grab
Temperature	Monitor Only						1 Day/Month	Grab
Total Phosphorus (as P)	8.3 (25)			1.0			3 Days/Week	Composite

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): 001 STP Outfall (New Plant) continued								
				Monthly Avg. not less than	Weekly Avg. not less than	Daily Minimum		
Dissolved Oxygen March-July				N/A	6.0	5.0	3 Days/Week	Grab
August-February				5.5	4.0	3.5	3 Days/Week	Grab

*Load limits based on design maximum flow shall apply only when flow exceeds design average flow.
**Carbonaceous BOD_5 ($CBOD_5$) testing shall be in accordance with 40 CFR 136.
***See Special Condition 10.
****See Special Condition 9.
[1] BOD_5 and Suspended Solids (85% removal required): In accordance with 40 CFR 133, the 30-day average percent removal shall not be less than 85 percent except as provided in Sections 133.103 and 133.105. The percent removal need not be reported to the IEPA on DMRs 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 $CBOD_5$ concentration to determine the effluent BOD_5 concentration.

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

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

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.

Phosphorus shall be reported on the DMR as a monthly average and daily maximum value.

NPDES Permit No. IL0038202

Influent Monitoring, and Reporting

The influent to the plant shall be monitored as follows:

Parameter	Sample Frequency*	Sample Type
Flow (MGD)	Continuous	
BOD_5	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_5 and Suspended Solids shall be reported on the DMR as a monthly average concentration.

*Once the new (1.0 MGD) treatment plant becomes operational the influent shall be monitored 3 days/week.

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 the existing plant shall be by or under the supervision of a Certified Class 2 operator and the new (1.0 MGD) plant shall be 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.

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. Fecal Coliform limits for Discharge Number 001 (New Plant) are effective May thru October. Sampling of Fecal Coliform is only required during this time period.

SPECIAL CONDITION 11. 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:

STORET CODE	PARAMETER	Minimum reporting limit
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

Special Conditions

00718	Cyanide (grab)(available*** or amenable to chlorination)	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

Minimum reporting limits are defined as - (1) The minimum value below which data are documented as non-detects. (2) Three to ten times the method detection limit. (3) The minimum value of the calibration range.

All sample containers, preservatives, holding times, analyses, method detection limit determinations and quality assurance/quality control requirements shall be in accordance with 40 CFR 136.

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.
***US EPA Method OIA-1677.

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

Biomonitoring

A. 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:

1. Fish - 96 hour static LC_{50} Bioassay using fathead minnows (Pimephales promelas).

2. Invertebrate 48-hour static LC_{50} Bioassay using Ceriodaphnia.

B. 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.

C. 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.

D. 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 $\geq$50% of organisms tested in the 100% effluent treatments, the Permittee shall immediately notify IEPA in writing of the test results.

E. Toxicity Reduction Evaluation and Identification - Should the biomonitoring program identify toxicity and result in notification by IEPA, the permittee shall develop a plan for toxicity reduction evaluation and identification. The plan shall be developed and implemented 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 within ninety (90) days following notification by the IEPA. The Permittee shall implement the plan within ninety (90) days of notification of the permittee above or other such date as is received by letter from IEPA.

Special Conditions

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 and toxicity reduction evaluation, the IEPA may modify this Permit to include numerical limitations for specific toxic pollutants and additional whole effluent toxicity monitoring to confirm the results of the evaluation. Modifications under this condition shall follow public notice and opportunity for hearing.

SPECIAL CONDITION 13. 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.

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 62794-9276

SPECIAL CONDITION 14. This Permit may be modified to include alternative or additional final effluent limitations pursuant to either an approved Total Maximum Daily Load (TMDL) Study or an approved Fox River Implementation Plan.

SPECIAL CONDITION 15. The Permittee shall operate the new treatment plant designed for biological nutrient removal (BNR). Monitoring for Total Nitrogen is required to document the actual total nitrogen effluent concentration. The Permittee shall monitor the effluent for total nitrogen once per month. The monitoring shall be a composite sample and the results reported as a daily maximum on the Permittee’s Discharge Monitoring Forms.

SPECIAL CONDITION 16. The Permittee shall participate in the Fox River Study Group (FRSG). The Permittee shall work with other watershed members of the FRSG to determine the most cost effective means to remove dissolved oxygen (DO) and offensive condition impairments in the Fox River. This Permit may be modified to include additional conditions and effluent limitations to include implementation measures based on the Fox River Implementation Plan (Implementation Plan). The following tasks will be completed during the life of this permit:

Special Conditions

a. The Permittee shall prepare a phosphorus removal feasibility report specific to its plant(s) on the method, time frame and costs for reducing its loading of phosphorus to levels equivalent to monthly average discharges of 1 mg/L and 0.5 mg/L on a seasonal basis and on a year round basis. The feasibility report shall be submitted to the IEPA twelve (12) months from the effective date of the Permit. The feasibility report shall also be shared with the FRSG.
b. The Permittee shall submit the Fox River Study Group Watershed Investigation Phase III Report, which includes stream modeling, to the IEPA within 1 month of the effective date of this Permit.
c. The FRSG will complete an Implementation Plan that identifies phosphorus input reductions by point source discharges, non-point source discharges and other measures necessary to remove DO and offensive condition impairments in the Fox River. The Implementation Plan shall be submitted to the IEPA by December 31, 2015. The Permittee shall initiate the recommendations of the Implementation Plan that are applicable to said Permittee during the remaining term of this Permit. This Permit may be modified to include additional pollutant reduction activities necessary to implement the Implementation Plan.
d. In its application for renewal of this permit, the Permittee shall consider and incorporate recommended FRSG phosphorus input reduction implementation projects that the Permittee will implement during the next permit term.
e. The Permittee shall operate the existing facilities to optimize the removal of phosphorus.

SPECIAL CONDITION 17. The Permittee shall monitor the wastewater effluent for Total Phosphorus, Dissolved Phosphorus, Nitrate/Nitrite, Total Kjeldahl Nitrogen (TKN), Ammonia, Total Nitrogen (calculated), Alkalinity and Temperature at least once a month once the new plant is operational. The results shall be submitted on Discharge Monitoring Report (DMR) Forms or NetDMRs to IEPA unless otherwise specified by the IEPA.

SPECIAL CONDITION 18. The Permittee shall notify the IEPA in writing once the flows at the existing facility reach 0.1 MGD and the existing treatment plant is taken out of service and the new plant becomes operational. A letter stating the date that the new plant started operation shall be sent to the following address within fourteen (14) days of the plant becoming operational:

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