NPDES Permit No. IL0030244

Notice No. GY:24041601.GY

Public Notice Beginning Date: June 21, 2024

Public Notice Ending Date: July 23, 2024

National Pollutant Discharge Elimination System (NPDES)
Permit Program

PUBLIC NOTICE/FACT SHEET
of
Draft Modified 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 Permittee:

North Shore Water Reclamation District
P.O. Box 750
14770 Wm. Koepsel Drive
Gurnee, Illinois 60031-0750

Name and Address of Facility:

NSWRD Waukegan Water Reclamation Facility
325 E. Dahringer Road
Waukegan, Illinois 60085
(Lake 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 Permittee. 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 modified 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 modified 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 modified 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 modified 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 Getie Yilma 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 modified Permit.

The applicant is engaged in treating domestic wastewater for Waukegan, Winthrop Harbor, Zion, Beach Park and other unincorporated areas.

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 Des Plaines River is 0.5 cfs.

The design average flow (DAF) for the facility is 22.0 million gallons per day (MGD) and the design maximum flow (DMF) for the facility is 44.0 MGD. Wastewater treatment consists of screening, grit removal, scum removal, primary clarification and Imhoff tanks, two-stage activated sludge process, biological phosphorus removal, clarification, tertiary filtration, and ultraviolet disinfection. Sludge treatment consists of thickening, dewatering, drying and land application.

The Permittee is currently participating in the Des Plaines River Watershed Workgroup (DRWW). The Permittee shall work with other watershed members of the DRWW to determine the most cost effective means to remove dissolved oxygen (DO) and offensive condition impairments in the Des Plaines Watershed to the extent feasible.

In accordance with Consent Order No. 99 Ch 1070, 19th Judicial Court, Lake County, IL, the entire force main is tested every five years. During this force main testing, replacement and repair program, wastewater is discharged to the Waukegan North Ditch (Outfall B02). Flows in excess of 30,536 gpm at the treatment plant are diverted to the excess flow retention basins for storage. After plant influent flows subside to less than design maximum flow, the sewage in the basins is returned to the plant for treatment. Flows in excess of the 38 MG capacity of the excess flow facilities is discharged through the Excess Flow Outfall (A02) to the Waukegan North Ditch after screening, sedimentation and disinfection.

Federal law requires that permits for excess flow discharges include the 7-day and 30-day SS and BOD5 concentration limitations and 85 percent removal requirements (unless the IEPA reduces or eliminates the percent removal requirements in accordance with 133.103(a) or (d)) specified in 40 CFR 133.102. IEPA is using an alternative effluent concentration limit based on the intermittent nature of the discharge. EPA is exercising its discretion to not object to this permit, but that EPA expects that future permits will include the 7-day SS and BOD5 concentration limits; and also the 85 percent removal requirements (unless the IEPA reduces or eliminates the percent removal requirements in accordance with 133.103(a) or (d)) for any excess flow discharge to receiving waters.

This treatment works has an approved pretreatment program. There are 3.0 noncategorical SIUs and 3.0 CIUs.

This Modified Permit does not increase the facility's DAF, DMF, concentration limits, and/or load limits.
The IEPA will accept comments on the following draft modification to the Permit:

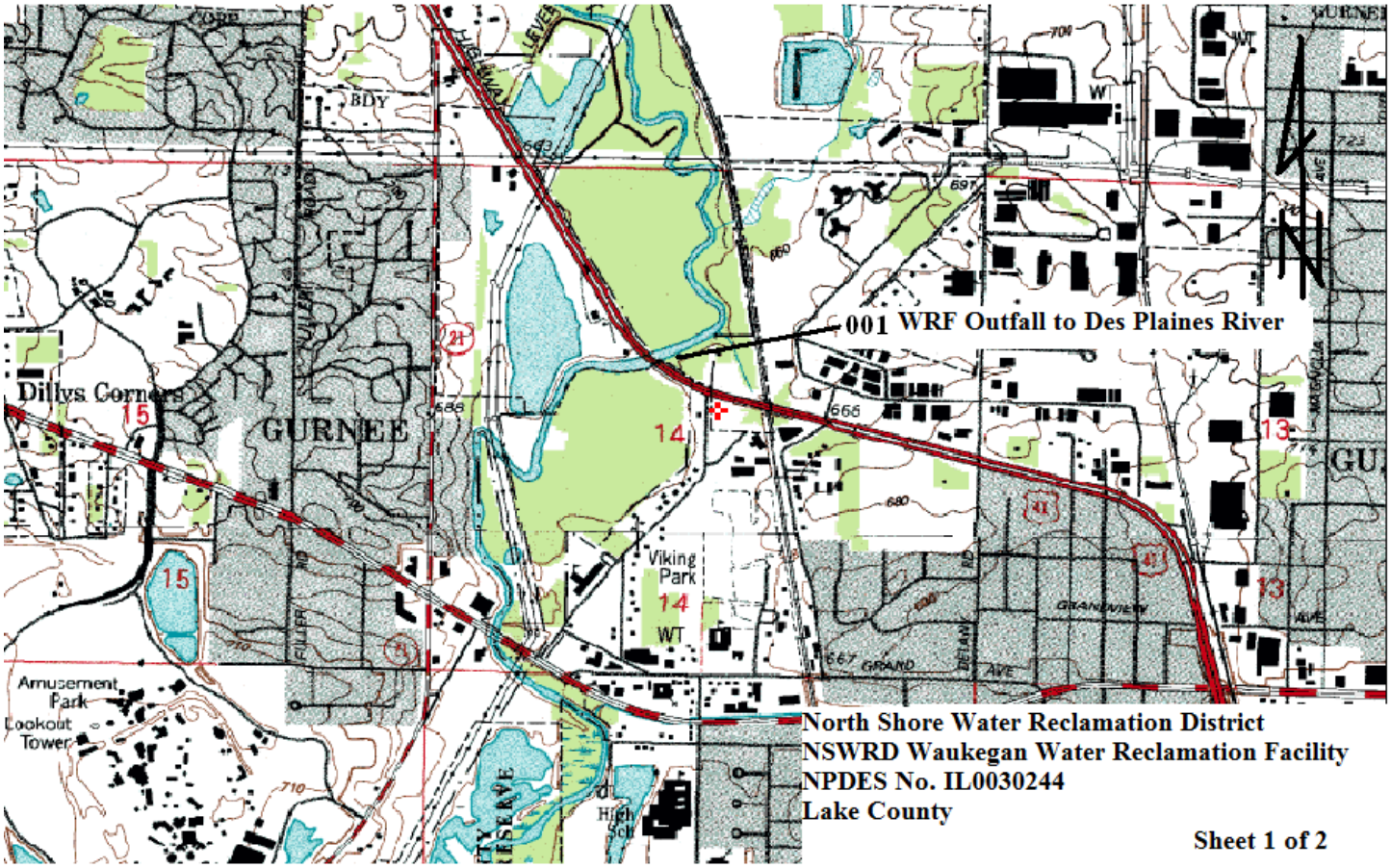
1. The typographical error in the B02 WRF Outfall effluent table on page 4 of the permit has been corrected.

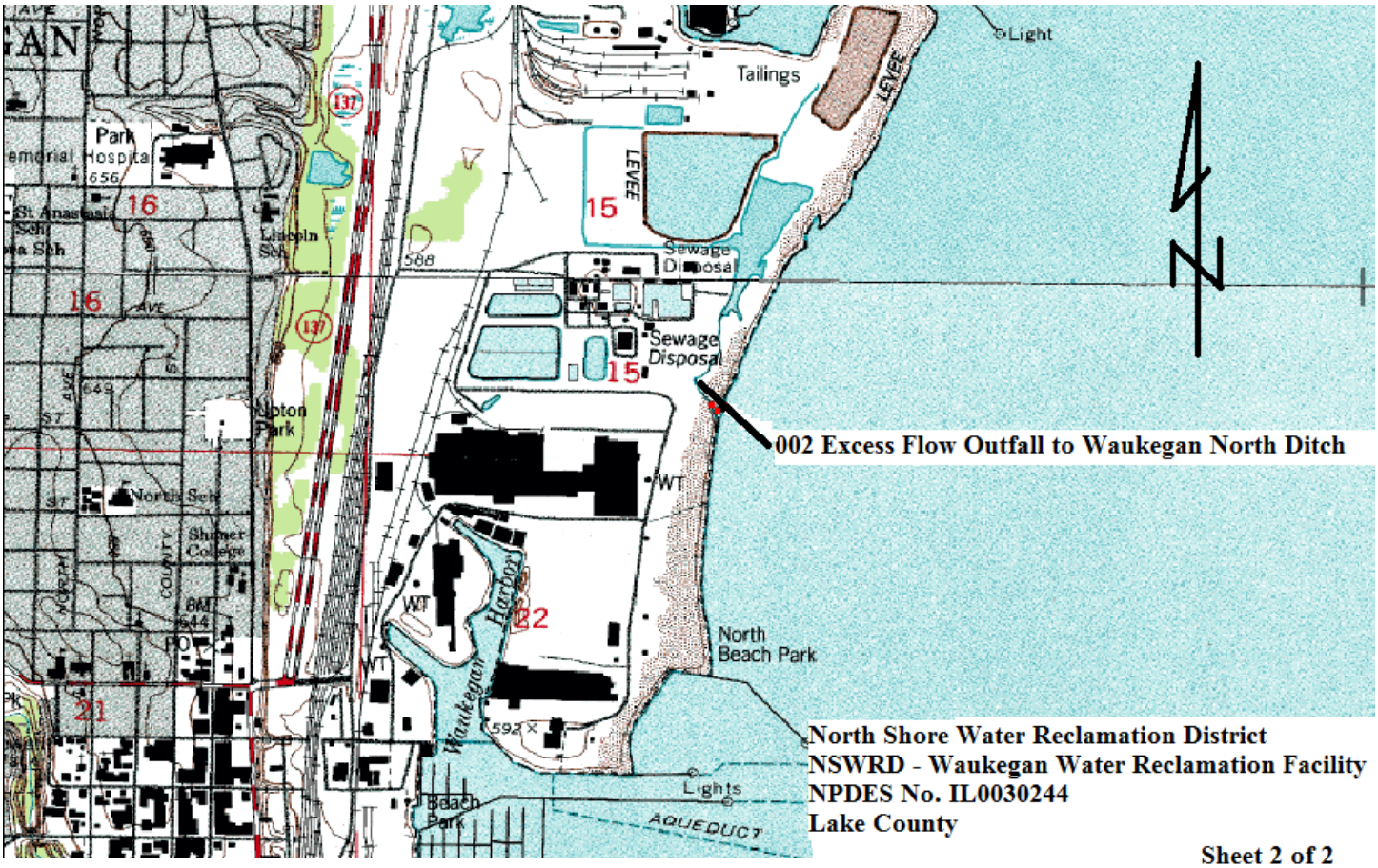
2. The sampling requirement included in Special Condition 19 of the permit has been removed in accordance with the updated watershed management plan.

Application is made for the existing discharge(s) which are located in Lake 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	Des Plaines River	42° 22′ 45″ North	87° 54′ 53″ West	General Use	Rated D
B02 (Main Outfall)	Waukegan North Ditch	42° 22′ 20″ North	87° 48′ 53″ West	General Use	N/A
A02 (Excess Flow)	Waukegan North Ditch	42° 22′ 20″ North	87° 48′ 53″ West	General Use	N/A
002 (Combined Flow)	Waukegan North Ditch	42° 22′ 20″ North	87° 48′ 53″ West	General Use	N/A

To assist you further in identifying the location of the discharge(s) please see the maps on the next pages.


001 WRF Outfall to Des Plaines River
Dillys Corners
GURNEE
Viking Park
Amusement Park
Lookout Tower
15
14
13
WT
BDY
North Shore Water Reclamation District
NSWRD Waukegan Water Reclamation Facility
NPDES No. IL0030244
Lake County
Sheet 1 of 2



The stream segment(s) (segment G-07) receiving the discharge from outfall(s) 001 is on the 2016 303(d) list of impaired waters.

The NSSD-Waukegan facility discharges to the Des Plaines River, Waterbody Segment, IL_G-07. The Des Plaines River, Waterbody Segment, IL_G-07, is listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aquatic life use with possible causes listed as alteration in stream-side or littoral vegetative covers, arsenic, chloride and total phosphorus, fish consumption use with potential causes given as mercury and polychlorinated biphenyls and primary contact recreation with a potential cause listed as fecal coliform. Aesthetic quality use is fully supported. From the treatment plant to the end of segment IL_G-07 is a distance of approximately 6.3 miles.

Segment IL_G-26 is the next segment of the Des Plaines River. The Des Plaines River, Waterbody Segment IL_G-26, is listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aquatic life use with potential causes given as unknown, and fish consumption with potential causes given as mercury and polychlorinated biphenyls (PCBs). Segment G-26 is 6.01 stream miles in length.

Segment IL_G-35 is the next segment of the Des Plaines River. The Des Plaines River, Waterbody Segment, IL_G-35, is listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aquatic life use with potential causes given as total phosphorus and cause unknown, and fish consumption use with potential causes given as mercury and polychlorinated biphenyls. Aesthetic quality use is fully supported. Segment IL_G-35 is 5 stream miles in length.

Segment IL_G-36 is the next segment of the Des Plaines River. The Des Plaines River, Waterbody Segment, IL_G-36, is listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aquatic life use with potential causes given as aquatic algae, total phosphorus and other flow regime alterations, primary contact recreation with a potential cause listed as fecal coliform and fish consumption with potential causes listed as mercury and polychlorinated biphenyls. Segment IL_G-36 is 7.22 stream miles in length.

This discharge is approximately 17.31 miles upstream of Waterbody Segment, IL_G-36, which is listed as impaired with a potential cause of Aquatic Algae.

Outfall 002 of the NSSD-Waukegan facility discharges to North Ditch, tributary to Waterbody Segment IL_QH-04, is not listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List since it has not been assessed. From the treatment plant to Lake Michigan is a distance of approximately 0.1 miles.

North ditch flows into Lake Michigan at Waterbody Segment IL_QH-04. Waukegan North Beach, Waterbody Segment IL_QH-04, is listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for fish consumption with possible causes listed as mercury and polychlorinated biphenyls (PCBs) and primary contact recreation with possible cause listed as E-coli.

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 WRF Outfall

Load limits computed based on a design average flow (DAF) of 22.0 MGD (design maximum flow (DMF) of 44.0 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
CBOD5**	1835 (3670)		3670 (7339)	10		20	35 IAC 304.120 40 CFR 133.102
Suspended Solids**	2202 (4404)		4404 (8807)	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						0.038	35 IAC 302.208
Ammonia Nitrogen (as N): April-October	275 (550)		550 (1101)	1.5		3.0	35 IAC 355 and 35 IAC 302
Nov.-Feb.	514 (1027)		1358 (2716)	2.8		7.4	
March	275 (550)	697 (1394)	1266 (2532)	1.5	3.8	6.9	
Total Phosphorus (as P)***	183 (367)			1.0			35 IAC 309.146
Total Nitrogen (as N)	Monitor only						35 IAC 309.146
Dissolved Reactive 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
Specific Conductivity	Monitor only						35 IAC 309.146
				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).

**BOD5 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.

***A compliance schedule to provide the facility additional time to comply with the phosphorus limit has been included in this draft modified permit. The existing permit did not include a phosphorus limit.

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): B02 WRF Outfall (001 Final Effluent thru B02)

Load limits computed based on a design average flow (DAF) of 22.0 MGD (design maximum flow (DMF) of 44.0 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
CBOD5**	734 (1468)		1468 (2936)	4		8	35 IAC 304.120 40 CFR 133.102
Suspended Solids**	917(1835)		1835 (3670)	5		10	35 IAC 304.120 40 CFR 133.102
pH	Shall be in the range of 6.5 to 9 Standard Units						35 IAC 302.503
Fecal Coliform	The monthly geometric mean shall not exceed 200 per 100 mL, nor shall more than 10% of the samples during any 30 day period exceed 400 per 100 mL.						35 IAC 302.505
Chlorine Residual						0.038	35 IAC 302.208
Total Ammonia (as N) March-May/Sept-Oct June-August Nov.-Feb.	 596(1,138) 752(1,505) 642(1,284)		 2,752(5,504) 2,752(5,504) 1,890(3,780)	 3.1 4.1 3.5		 15.0 15.0 10.3	35 IAC 302.535 and Part 355
Copper	2.2 (4.4)		3.5 (7.0)	0.012		0.019	35 IAC 302.504
Total Phosphorus (as P)***	183 (367)			1.0			35 IAC 304.123
Total Nitrogen (as N)	Monitor only						35 IAC 309.146
			Annual Average			Annual Average	
Mercury			0.00024 (.00048)			0.0000013	35 IAC 302.504
Dissolved Oxygen	Shall not be less than 6.0 mg/L during at least 16 hours of any 24 hour period, nor less than 5.0 mg/L at any time.						35 IAC 302.502

*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)

**BOD5 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.

***A compliance schedule to provide the facility additional time to comply with the phosphorus limit has been included in this draft modified permit. The existing permit did not include a phosphorus limit.

This Permit contains an authorization to treat and discharge excess flow as follows:

Discharge Number(s) and Name(s): A02 Excess Flow Outfall (Flows in excess of 30,536 gpm)

	CONCENTRATION LIMITS mg/L		
Parameter	Monthly Average	Weekly Average	Regulation
BOD5	Monitor only		35 IAC 309.146
Suspended Solids	Monitor only		35 IAC 309.146
Ammonia Nitrogen (as N)	Monitor only		35 IAC 309.146
Total Phosphorus (as P)	Monitor only		35 IAC 309.146

Discharge Number(s) and Name(s): 002 Combined Discharges from A02 and B02 Outfall to Waukegan North Ditch

	CONCENTRATION LIMITS (mg/L)		
Parameter	Monthly Average		Regulation
BOD5	L*		40 CFR 133.102
Suspended Solids	L*		40 CFR 133.102
Fecal Coliform	Daily Maximum Shall Not Exceed 400 per 100 mL		35 IAC 304.121
pH	Shall be in the range of 6 to 9 Standard Units		35 IAC 304.125
Chlorine Residual	0.75		35 IAC 304.208
Total Phosphorus (as P)	Monitor Only		35 IAC 309.146
Ammonia Nitrogen (as N)	Monitor Only		35 IAC 309.146
Dissolved Oxygen	Monitor Only		35 IAC 309.146

*The Monthly Average Limit shall be calculated based upon the following formula: L = (-15/23) D + 49.565, where:
L = Monthly Average Limit and
D = Number of days the outfall discharges that month.

This draft modified 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. Provisions of 40 CFR Section 122.41 (m) & (n).

8. Effluent sampling point location.

9. Controlling the sources of infiltration and inflow into the sewer system.

10. A requirement to monitor and a limit of 0.038 mg/L for residual chlorine when it is used.

11. Seasonal fecal coliform limits.

12. The Permittee implements and administers an industrial pretreatment program pursuant to 40 CFR §403.

13. Burden reduction.

14. Submission of annual fiscal data.

15. 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.

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

17. Optimization of existing treatment facilities.

18. Submission of phosphorus removal feasibility study.

19. Monitoring of the wastewater effluent for dissolved reactive phosphorus, total phosphorus, dissolved oxygen, ammonia nitrogen, nitrate/nitrite, total kjeldahl nitrogen, pH, alkalinity, specific conductivity and temperature once a month.

20. Effluent limitations pursuant to an approved Total Maximum Daily Load (TMDL) Study or an approved Des Plaines River Watershed Study.

21. The applicable terms and conditions of Title 35, Subtitle C, Chapter 1, Section 304.219.

22. The requirements and conditions of Consent Order No. 99 Ch1070, 19th Judicial Court, Lake County, Illinois dated January 29, 2002.

23. Reasonable potential analysis and mixing study plan.

24. Capacity, Management, Operations and Maintenance (CMOM) requirements.

25. BOD5 and Suspended Solids Effluent Report.

26. Participation in the Des Plaines Watershed Group.

27. Requirement to meet 0.5 mg/L phosphorus limit by January 1, 2030.

28. Compliance Schedule for meeting 1.0 mg/L phosphorus limit.

29. Nutrient Assessment Reduction Plan (NARP) - Impairment Related.

30. Demonstration of Open Waters of Lake Michigan for outfall B02.

NPDES Permit No. IL0030244

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

Modified (NPDES) Permit

Expiration Date: August 31, 2026

Issue Date: August 27, 2021
Effective Date: September 09, 2021
Modification Date:

Name and Address of Permittee:

North Shore Water Reclamation District
P.O. Box 750
14770 Wm. Koepsel Drive
Gurnee, Illinois 60031-0750

Facility Name and Address:

NSWRD Waukegan Water Reclamation Facility
325 E. Dahringer Road
Waukegan, Illinois 60085
(Lake County)

Receiving Waters: Des Plaines River (001) and Waukegan North Ditch (002)

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 Effluent Limitations, Monitoring, and Reporting requirements; Special Conditions and Attachment H Standard Conditions attached 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.

Darin E. LeCrone, P.E.
Manager, Permit Section
Division of Water Pollution Control

BDF:GY:24041601.GY

NPDES Permit No.IL0030244

Effluent Limitations, Monitoring, and Reporting

FINAL

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

Load limits computed based on a design average flow (DAF) of 22.0 MGD (design maximum flow (DMF) of 44.0 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:

	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	
CBOD5**(1)	1835 (3670)		3670 (7339)	10		20	2 Days/Week	Composite
Suspended Solids(1)	2202 (4404)		4404 (8807)	12		24	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***						0.038	***	Grab
Ammonia Nitrogen: (as N) April-October	275 (550)		550 (1101)	1.5		3.0	2 Days/Week	Composite
Nov.-Feb.	514 (1027)		1358 (2716)	2.8		7.4	2 Days/Week	Composite
March	275 (550)	697(1394)	1266 (2532)	1.5	3.8	6.9	2 Days/Week	Composite
Total Phosphorus (as P)****	183 (367)			1.0			1 Day/Week	Composite
Total Nitrogen (as N)	Monitor only						1 Day/Month	Composite
Dissolved reactive Phosphorus	Monitor Only						1 Day/Month	Composite
Nitrate/Nitrite	Monitor Only						1 Day/Month	Composite
Total Kjeldahl Nitrogen (TKN)	Monitor Only						1 Day/Month	Composite
Alkalinity	Monitor Only						1 Day/Month	Grab
Temperature	Monitor Only						1 Day/Month	Grab
Specific Conductivity	Monitor Only						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	2 Days/Week	Grab
August-February				5.5	4.0	3.5	2 Days/Week	Grab

*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 10.
****See Special Condition 28.

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): 001 WRF Outfall (Continued)

(1) BOD5 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. 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 CBOD5 concentration to determine the effluent BOD5 concentration or laboratory analysis for the determination of BOD5 may be used.

Percent removal is a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of the raw wastewater influent concentrations to the facility and the 30-day average values of the effluent pollutant concentrations for a given time period.

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 a daily maximum value.

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

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

Total Nitrogen shall be reported on the DMR as a daily maximum value. Total Nitrogen is the sum of total kjeldahl nitrogen (TKN), nitrate and nitrite.

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Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): B02 WRF Outfall (001 Final Effluent thru B02)
Load limits computed based on a design average flow (DAF) of 22.0 MGD (design maximum flow (DMF) of 44.0 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:

	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	
CBOD5**(1)	734 (1468)		1468 (2936)	4		8	2 Days/Week	Composite
Suspended Solids (1)	917 (1835)		1835 (3670)	5		10	2 Days/Week	Composite
pH	Shall be in the range of 6.5 to 9 Standard Units						2 Days/Week	Grab
Fecal Coliform	The monthly geometric mean shall not exceed 200 per 100 mL, nor shall more than 10% of the samples during any 30 day period exceed 400 per 100 mL						2 Days/Week	Grab
Chlorine Residual***						0.038	***	Grab
Total Ammonia(as N)***** March-May/Sept-Oct June-August Nov.-Feb.	 596(1,138) 752(1,505) 642(1,284)		 2,752(5,504) 2,752(5,504) 1,890(3,780)	 3.1 4.1 3.5		 15.0 15.0 10.3	 2 Days/Week 2 Days/Week 2 Days/Week	 Composite Composite Composite
Copper	2.2 (4.4)		3.5 (7.0)	0.012		0.019	1 Day/Month	Composite
Total Phosphorus (as P)****	183 (367)			1.0			2 Days/Week	Composite
Total Nitrogen(as N)	Monitor only						1 Day/Month	Composite
			Annual Average			Annual Average		
Mercury			.00024 (.00048)			.0000013	1 Day/Month	Grab
Dissolved Oxygen	Shall not be less than 6.0 mg/L during at least 16 hours of any 24-hour period, nor less than 5.0 mg/L at any time						2 Days/Week(2)	Grab

*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 10.
****See Special Condition 28.
*****See Special Condition 30.
(1) BOD5 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. 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 CBOD5 concentration to determine the effluent BOD5 concentration or laboratory analysis for the determination of BOD5 may be used.
Percent removal is a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of the raw wastewater influent concentrations to the facility and the 30-day average values of the effluent pollutant concentrations for a given time period.
(2) More samples may be taken if necessary.
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 monthly geometric mean and as a percentage of the samples exceeding 400 per l00 mL.
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.
Total Phosphorus shall be reported on the DMR as a monthly average and a daily maximum value.
Total Nitrogen shall be reported on the DMR as a daily maximum value. Total Nitrogen is the sum of total kjeldahl nitrogen (TKN), nitrate and nitrite.
-Continued on next page.

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): B02 WRF Outfall (001 Final Effluent thru B02) (Continued)

The rolling annual monthly average mercury values shall be computed monthly beginning 12 months after the effective date of the permit and shall include the previous 12 months of data. The rolling annual monthly average, monthly average and daily maximum values for total mercury shall be reported on the DMR. The rolling annual monthly average shall be calculated by adding the sum of the total mercury monitoring values from the previous 12 months of data expressed in milligrams/liter and divided by the number of samples collected.

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Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): A02 WRF Excess Flow Outfall (Flows in excess of 30,536 gpm)

Discharges from Outfall A02 shall not occur until the design maximum flow (DMF)* has been conveyed to the main treatment facilities at Waukegan and the Waukegan Excess Flow Basin is full. Stored wastewater shall be returned to the main treatment facilities for complete treatment as soon as capacity is available.

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:

	CONCENTRATION LIMITS (mg/L)			
Parameter	Monthly Average	Weekly Average	Sample Frequency	Sample Type
Total Flow (MG)			Daily When Discharging	Continuous
BOD5	Monitor Only		Daily When Discharging	Grab
Suspended Solids	Monitor Only		Daily When Discharging	Grab
Ammonia Nitrogen (as N)	Monitor Only		Daily When Discharging	Grab
Total Phosphorus (as P)	Monitor Only		Daily When Discharging	Grab

*An explanation shall be provided in the comment section of the DMR should these facilities be used when the main treatment facility is not receiving Design Maximum Flow (DMF). The explanation shall identify the reasons the main facility is at a diminished treatment capacity. Additionally, the Permittee shall comply with the provisions of Special Condition 7.

The duration of each A02 discharge and rainfall event (i.e., start and ending time) including rainfall intensity shall be provided in the comment section of the DMR.

Total flow in million gallons shall be reported on the Discharge Monitoring Report (DMR) in the quantity maximum column. The main treatment plant facility flow at the time that A02 Excess Flow Facilities are first utilized shall be reported in the comment section of the DMR in gallons per minute (gpm).

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

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Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): 002 Combined Discharges from A02 and B02 Outfall to Waukegan North Ditch*

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:

	CONCENTRATION LIMITS (mg/L)		
Parameter	Monthly Average	Sample Frequency	Sample Type
Total Flow (MG)		Daily When A02 is Discharging	Continuous
BOD5	L**	Daily When A02 is Discharging	Grab
Suspended Solids	L**	Daily When A02 is Discharging	Grab
Fecal Coliform	Daily Maximum Shall not Exceed 400 per 100 mL	Daily When A02 is Discharging	Grab
pH	Shall be in the range of 6 to 9 Standard Units	Daily When A02 is Discharging	Grab
Chlorine Residual	0.75	Daily When A02 is Discharging	Grab
Total Phosphorus (as P)	Monitor Only	Daily When A02 is Discharging	Grab
Ammonia Nitrogen (as N)***	Monitor Only	Daily When A02 is Discharging	Grab
Dissolved Oxygen	Monitor Only	Daily When A02 is Discharging	Grab

Total flow in million gallons shall be reported on the Discharge Monitoring Report (DMR) in the quantity maximum column. The main treatment facility flow at the time that A02 Excess Flow Facilities are first utilized shall be reported in the comment section of the DMR in gallons per minute (gpm).

The duration of each discharge and rainfall event (i.e., start and ending time) including rainfall intensity shall be provided in the comment section of the DMR.

Report the number of days of discharge in the comments section of the DMR.
Chlorine Residual shall be reported on the DMR as monthly average value.
pH shall be reported on the DMR as a minimum and a maximum value.
BOD5 and Suspended Solids shall be reported on the DMR as a monthly and weekly average concentration.
Fecal Coliform shall be reported on the DMR as daily maximum.
Dissolved oxygen shall be reported on the DMR as a minimum value.
Ammonia Nitrogen shall be reported on the DMR as a maximum value.
Total Phosphorus shall be reported on the DMR as a monthly average and a daily maximum value.

*An explanation shall be provided in the comment section of the DMR should these facilities be used when the main treatment facility is not receiving Design Maximum Flow (DMF). The explanation shall identify the reasons the main facility is at a diminished treatment capacity. Additionally, the Permittee shall comply with the provisions of Special Condition 7.

**The Monthly Average Limit shall be calculated based upon the following formula:
$L = (-15/23) D + 49.565$,
Where L = Monthly Average Limit and
D = Number of days the outfall discharges that month.

***See Special Condition 23.

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Influent Monitoring, and Reporting

The influent to the plant shall be monitored as follows:

Parameter	Sample Frequency	Sample Type
Flow (MGD)	Continuous	
BOD5	2 Days/Week and Daily When Outfall A02 is Discharging	Composite*
Suspended Solids	2 Days/Week and Daily When Outfall A02 is Discharging	Composite*
Total Phosphorus (as P)	1 Day/Week	Composite

*A grab sample may be taken when Outfall A02 is Discharging.

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 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 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 and 303.

SPECIAL CONDITION 6. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) electronic 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 is required to submit electronic DMRs (NetDMRs) instead of mailing paper DMRs to the IEPA unless a waiver has been granted by the Agency. More information, including registration information for the NetDMR program, can be obtained on the IEPA website, https:www2.illinois.gov/epa/topics/water-quality/surface-water/netdmr/pages/quick-answer-guide.aspx.

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 that have been granted a waiver 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.

A. For Outfall Number 001: Samples for all effluent limitations and monitoring parameters applicable to Outfall 001 shall be taken at a point representative of the flows from Outfall 001 but prior to entry into the receiving stream.

B. For Outfall Number B02: Samples for all effluent limitations and monitoring parameters applicable to Outfall B02 shall be taken at a point representative of the flows from Outfall B02 but prior to entry into the receiving stream. On days when there are discharges from Outfall A02, samples for all effluent limitations and monitoring parameters applicable to Outfall B02 shall be representative of discharges from B02 and shall be taken at a point prior to admixture with discharges from Outfall A02.

C. For Outfall Number A02: Samples for all effluent limitations and monitoring parameters applicable to Outfall A02 shall be taken at a point representative of the discharge from Outfall A02 and shall be taken at a point prior to admixture with discharges from Outfall B02.

D. For Outfall Number 002: Samples for all effluent limitations and monitoring parameters applicable to Outfall 002 shall be taken at a point representative of the discharge from Outfall 002 but prior to entry into the receiving stream and shall include all flow from Outfalls A02 and B02. On days when there are no discharges through Outfall A02, samples for discharges through Outfall 002 can be taken at the location of sampling for Outfall B02. When there are discharges from Outfall A02, samples for all effluent limitations and monitoring parameters applicable to Outfall 002 shall be representative of the discharge from Outfall 002 and shall be taken at a point after flows from Outfalls A02 and B02 are mixed.

Special Conditions

SPECIAL CONDITION 9. On or before March 31 of each year, the Permittee shall submit a report that provides an estimate of the extent of reduction (volume and per cent of annual total) of infiltration and inflow that has been accomplished during the preceding year (assessed on an annual average basis). The fourth report submitted in accordance with this special condition shall also include an analysis of the costs to remove remaining flow contributed from infiltration and inflow as compared to the total costs for transportation and treatment of the infiltration and inflow.

SPECIAL CONDITION 10. For Discharge No. 001 and B02 (001 Final effluent thru B02), any use of chlorine to control slime growths, odors or as an operational control, etc. shall not exceed the limit of 0.038 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 11. Fecal Coliform limits for Discharge Number 001 are effective May thru October. Sampling of Fecal Coliform is only required during this time period.

SPECIAL CONDITION 12.

A. Publicly Owned Treatment Works (POTW) Pretreatment Program General Provisions

1. The Permittee shall implement and enforce its approved Pretreatment Program which was approved on December 27, 1984 and all approved subsequent modifications thereto. The Permittee shall maintain legal authority adequate to fully implement the Pretreatment Program in compliance with Federal (40 CFR 403), State, and local laws and regulations. All definitions in this section unless specifically otherwise defined in this section, are those definitions listed in 40 CFR 403.3. USEPA Region 5 is the Approval Authority for the administration of pretreatment programs in Illinois. The Permittee shall:

   a. Develop and implement procedures to ensure compliance with the requirements of a pretreatment program as specified in 40 CFR 403.8 (f) (2).

   b. Carry out independent inspection and monitoring procedures at least once per year, which will determine whether each significant industrial user (SIU) is in compliance with applicable pretreatment standards;

   c. Evaluate whether each SIU needs a slug control plan or other action to control slug discharges. If needed, the SIU slug control plan shall include the item specified in 40 CFR 403.8(f)(2)(vi). For Industrial Users (IUs) identified as significant prior to November 14, 2005, this evaluation must have been conducted at least one by October 14, 2006; additional SIUs much be evaluated within 1 year of being designated an SIU;

   d. Update its inventory of Industrial Users (IUs) at least annually and as needed to ensure that all SIUs are properly identified, characterized, and categorized;

   e. Receive and review self monitoring and other IU reports to determine compliance with all pretreatment standards and requirements, and obtain appropriate remedies for noncompliance by any IU with any pretreatment standard and/or requirement;

   f. Investigate instances of noncompliance, collect and analyze samples, and compile other information with sufficient care as to produce evidence admissible in enforcement proceedings, including judicial action;

   g. Require development, as necessary, of compliance schedules by each industrial user to meet applicable pretreatment standards; and,

   h. Maintain an adequate revenue structure and staffing level for continued operation of the Pretreatment Program.

2. The Permittee shall issue/reissue permits or equivalent control mechanisms to all SIUs prior to expiration of existing permits or prior to commencement of discharge in the case of new discharges. The permits at a minimum shall include the elements listed in 40 CFR § 403.8(f)(1)(iii)(B).

3. The Permittee shall develop, maintain, and enforce, as necessary, local limits to implement the general and specific prohibitions in 40 CFR § 403.5 which prohibit the introduction of any pollutants which cause pass through or interference and the introduction of specific pollutants to the waste treatment system from any source of nondomestic discharge.

4. In addition to the general limitations expressed in Paragraph 3 above, applicable pretreatment standards must be met by all industrial users of the POTW. These limitations include specific standards for certain industrial categories as determined by Section 307(b) and (c) of the Clean Water Act, State limits, or local limits, whichever are more stringent

Special Conditions

5. The USEPA and IEPA individually retain the right to take legal action against any industrial user and/or the POTW for those cases where an industrial user has failed to meet an applicable pretreatment standard by the deadline date regardless of whether or not such failure has resulted in a permit violation.

6. The Permittee shall establish agreements with all contributing jurisdictions, as necessary, to enable it to fulfill its requirements with respect to all IUs discharging to its system.

7. Unless already completed, the Permittee shall within six (6) months of the effective date of this Permit submit to USEPA and IEPA a proposal to modify and update its approved Pretreatment Program to incorporate Federal revisions to the general pretreatment regulations. The proposal shall include all changes to the approved program and the sewer use ordinance which are necessary to incorporate the revisions of the Pretreatment Streamlining Rule (which became effective on November 14, 2005), which are considered required changes, as described in the Pretreatment Streamlining Rule Fact Sheet 2.0: Required changes, available at: http://cfpub.epa.gov/npdes/whatsnew.cfm?program_id=3. This includes any necessary revisions to the Permittee's Enforcement Response Plan (ERP).

8. Within 12 months from the effective date of this permit, the Permittee shall conduct a technical re-evaluation of its local limitations consistent with U.S. EPA's Local Limits Development Guidance (July 2004) and submit the evaluation and any proposed revisions to its local limits to IEPA and U.S. EPA Region 5 for review and approval. U.S. EPA Region 5 will request Permittee to submit the evaluation and any proposed revisions to its local limits on the spreadsheet found at http://www.epa.gov/region5/water/npdestek/Locallmt.xls. To demonstrate technical justification for new local industrial user limits or justification for retaining existing limits, the following information must be submitted to U.S. EPA:

   a. Total plant flow
   b. Domestic/commercial pollutant contributions for pollutants of concern
   c. Industrial pollutant contributions and flows
   d. Current POTW pollutant loadings, including loadings of conventional pollutants
   e. Actual treatment plant removal efficiencies, as a decimal (primary, secondary, across the wastewater treatment plant)
   f. Safety factor to be applied
   g. Identification of applicable criteria:
      i. NPDES permit conditions
         •Specific NPDES effluent limitations
         •Water-quality criteria
         •Whole effluent toxicity requirements
         •Criteria and other conditions for sludge disposal
      ii. Biological process inhibition
         •Nitrification
         •Sludge digester
      iii. Collection system problems
   h. The Permittee's sludge disposal methods (land application, surface disposal, incineration, landfill)
   i. Sludge flow to digester
   j. Sludge flow to disposal
   k. % solids in sludge to disposal, not as a decimal
   l. % solids in sludge to digester, not as a decimal
   m. Plant removal efficiencies for conventional pollutants
   n. If revised industrial user discharge limits are proposed, the method of allocating available pollutants loads to industrial users
   o. A comparison of maximum allowable headworks loadings based on all applicable criteria listed in g, above
   p. Pollutants that have caused:
      i. Violations or operational problems at the POTW, including conventional pollutants
      ii. Fires and explosions
      iii. Corrosion
      iv. Flow obstructions
      v. Increased temperature in the sewer system
      vi. Toxic gases, vapors or fumes that caused acute worker health and safety problems
      vii. Toxicity found through Whole Effluent Toxicity testing
      viii. Inhibition
   q. Pollutants designated as "monitoring only" in the NPDES permit
   r. Supporting data, assumptions, and methodologies used in establishing the information a through q above

Special Conditions

9. The Permittee Pretreatment Program has been modified to incorporate a Pretreatment Program Amendment approved on July 10, 1995. The amendment became effective on the date of approval and is a fully enforceable provision of your Pretreatment Program.

Modifications of your Pretreatment Program shall be submitted in accordance with 40 CFR § 403.18, which established conditions for substantial and non-substantial modifications. All requests should be sent in electronic format to r5npdes@epa.gov, Attention: NPDES Program Branch.

B. Reporting and Records Requirements

1. The Permittee shall provide an annual report briefly describing the permittee's pretreatment program activities over the previous calendar year. Permittees who operate multiple plants may provide a single report providing all plant-specific reporting requirements are met. Such report shall be submitted no later than May 31st of each year to USEPA, Region 5, 77 West Jackson Blvd., Chicago, Illinois 60604, Attention: Water Enforcement & Compliance Assurance Branch, and shall be in the format set forth in IEPA's POTW Pretreatment Report Package which contains information regarding:

a. An updated listing of the Permittee's significant industrial users, indicating additions and deletions from the previous year, along with brief explanations for deletions. The list shall specify which categorical Pretreatment standards, if any, are applicable to each Industrial User.

b. A descriptive summary of the compliance activities including numbers of any major enforcement actions, (i.e., administrative orders, penalties, civil actions, etc.), and the outcome of those actions. This includes an assessment of the compliance status of the Permittee's industrial users and the effectiveness of the Permittee's Pretreatment Program in meeting its needs and objectives.

c. A description of all substantive changes made to the Permittee's Pretreatment Program. Changes which are "substantial modifications" as described in 40 CFR § 403.18(c) must receive prior approval from the USEPA.

d. Results of sampling and analysis of POTW influent, effluent, and sludge.

e. A summary of the findings from the priority pollutants sampling. As sufficient data becomes available the IEPA may modify this Permit to incorporate additional requirements relating to the evaluation, establishment, and enforcement of local limits for organic pollutants. Any permit modification is subject to formal due process procedures pursuant to State and Federal law and regulation. Upon a determination that an organic pollutant is present that causes interference or pass through, the Permittee shall establish local limits as required by 40 CFR § 403.5(c).

2. The Permittee shall maintain all pretreatment data and records for a minimum of three (3) years. This period shall be extended during the course of unresolved litigation or when requested by the IEPA or the Regional Administrator of USEPA. Records shall be available to USEPA and the IEPA upon request.

3. The Permittee shall establish public participation requirements of 40 CFR 25 in implementation of its Pretreatment Program. The Permittee shall at least annually, publish the names of all IU's which were in significant noncompliance (SNC), as defined by 40 CFR § 403.8(f)(2)(viii), in a newspaper of general circulation that provides meaningful public notice within the jurisdictions served by the Permittee or based on any more restrictive definition of SNC that the POTW may be using.

4. The Permittee shall provide written notification to the USEPA, Region 5, 77 West Jackson Blvd., Chicago, Illinois 60604, Attention: NPDES Programs Branch and to the Deputy Counsel for the Division of Water Pollution Control, IEPA, 1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 within five (5) days of receiving notice that any Industrial User of its sewage treatment plant is appealing to the Circuit Court any condition imposed by the Permittee in any permit issued to the Industrial User by Permittee. A copy of the Industrial User's appeal and all other pleadings filed by all parties shall be mailed to the Deputy Counsel within five (5) days of the pleadings being filed in Circuit Court.

C. Monitoring Requirements

1. The Permittee shall monitor its influent, effluent and sludge and report concentrations of the following parameters on Discharge Monitoring Report (DMR) electronic forms, unless otherwise specified by the IEPA. Samples shall be taken at semi-annual intervals at the indicated reporting limit or better and consist of a 24-hour composite unless otherwise specified below. Sludge samples shall be taken of final sludge and consist of a grab sample reported on a dry weight basis.

Special Conditions

STORET CODE	PARAMETER	Minimum reporting limit
01097	Antimony	0.07 mg/L
01002	Arsenic	0.05 mg/L
01007	Barium	0.5 mg/L
01012	Beryllium	0.005 mg/L
01027	Cadmium	0.001 mg/L
01032	Chromium (hex) (grab not to exceed 24 hours)*	0.01 mg/L
01034	Chromium (total)	0.05 mg/L
01042	Copper	0.005 mg/L
00720	Cyanide (total) (grab)****	5.0 ug/L
00722	Cyanide* (grab) (available ***** or amenable to chlorination)****	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 (effluent 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
01059	Thallium	0.3 mg/L
01092	Zinc	0.025 mg/L

The minimum reporting limit for each parameter is specified by Illinois EPA as the regulatory authority.

The minimum reporting limit for each parameter shall be greater than or equal to the lowest calibration standard and within the acceptable calibration range of the instrument.

The minimum reporting limit is the value below which data are to be reported as non-detects.

The statistically-derived laboratory method detection limit for each parameter shall be less than the minimum reporting limit required for that parameter.

All sample containers, chemical and thermal preservation, holding times, analyses, method detection limit determinations and quality assurance/quality control requirements shall be in accordance with 40 CFR Part 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. Where constituents are commonly measured as other than total, the phase is so indicated.

* Influent and effluent only
**1 ng/L = 1 part per trillion.
***Utilize USEPA Method 1631E and the digestion procedure described in Section 11.1.1.2 of 1631E, other approved methods may be used for influent (composite) and sludge.
****Analysis for cyanide (available or amenable to chlorination) is only required if cyanide (total) is detected at or above the minimum reporting limit.
*****USEPA Method OIA-1677 or Standard Method SM 4500-CN G.

2. The Permittee shall conduct an analysis for the one hundred and ten (110) organic priority pollutants identified in 40 CFR 122 Appendix D, Table II as amended. This monitoring shall be done annually and reported on monitoring report forms provided by the IEPA and shall consist of the following:

   a. The influent and effluent shall be sampled and analyzed for the one hundred and ten (110) organic priority pollutants. The sampling shall be done during a day when industrial discharges are expected to be occurring at normal to maximum levels.

      Samples for the analysis of acid and base/neutral extractable compounds shall be 24-hour composites.

Five (5) grab samples shall be collected each monitoring day to be analyzed for volatile organic compounds. A single analysis for volatile pollutants (Method 624) may be run for each monitoring day by compositing equal volumes of each grab sample directly in the GC purge and trap apparatus in the laboratory, with no less than one (1) mL of each grab included in the composite.

Wastewater samples must be handled, prepared, and analyzed by GC/MS in accordance with USEPA Methods 624 and 625 of 40 CFR 136 as amended.

b. The sludge shall be sampled and analyzed for the one hundred and ten (110) organic priority pollutants. A sludge sample shall be collected concurrent with a wastewater sample and taken as final sludge.

Sampling and analysis shall conform to USEPA Methods 624 and 625 and other methods approved under 40 CFR Part 503 unless an alternate method has been approved by IEPA.

c. Sample collection, preservation and storage shall conform to approved USEPA procedures and requirements.

3. In addition, the Permittee shall monitor any new toxic substances as defined by the Clean Water Act, as amended, following notification by the IEPA or USEPA.

4. Permittee shall report any noncompliance with effluent or water quality standards in accordance with Standard Condition 12(f) of this Permit.

5. Analytical detection limits shall be in accordance with 40 CFR 136. Minimum detection limits for sludge analyses shall be in accordance with 40 CFR 503.

D. Pretreatment Reporting

USEPA Region 5 is the Approval Authority for administering the pretreatment program in Illinois. All requests for modification of pretreatment program elements should be submitted in redline/strikeout format and must be sent to USEPA at r5npdes@epa.gov.

Permittee shall upon notice from USEPA, modify any pretreatment program element found to be inconsistent with 40 CFR 403.

SPECIAL CONDITION 13. The Permittee has undergone a Monitoring Reduction review and the influent and effluent sample frequency has been reduced for parameters due to sustained compliance. The IEPA may request that the influent and effluent sampling frequency for these parameters be increased without Public Notice. This provision does not limit EPA's authority to require additional monitoring, information or studies pursuant to Section 308 of the CWA.

SPECIAL CONDITION 14. 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 15. 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 Rec0eiving 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 LC50 Bioassay using fathead minnows (*Pimephales promelas*).

2. Invertebrate 48-hour static LC50 Bioassay using *Ceriodaphnia*.

B. Testing Frequency - The above tests shall be conducted using 24-hour composite samples unless otherwise authorized by the IEPA. Sample collection and testing must be conducted in the 18th, 15th, 12th, and 9th month prior to the expiration date of this Permit. When possible, bioassay sample collection should coincide with sample collection for metals analysis or other parameters that may contribute to effluent toxicity.

Special Conditions

C. Reporting - Results shall be reported according to EPA/821-R-02-012, Section 12, Report Preparation, and shall be mailed to IEPA, Bureau of Water, Compliance Assurance Section or emailed to EPA.PrmtSpecCondtns@Illinois.gov 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 tested 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 one (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 must contact the IEPA within one (1) day of the results becoming available to the Permittee and begin the toxicity identification and reduction evaluation process as outlined below.

E. Toxicity Identification and Reduction Evaluation - Should any of the additional bioassays result in toxicity to ≥50% of organisms tested in the 100% effluent treatment, the Permittee must contact the IEPA within one (1) day of the results becoming available to the Permittee and begin the toxicity identification evaluation process in accordance with Methods for Aquatic Toxicity Identification Evaluations, EPA/600/6-91/003. The IEPA may also require, upon notification, that the Permittee prepare a plan for toxicity reduction evaluation to be developed in accordance with Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, EPA/833B-99/002, which 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 16. 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 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.

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 17. The Permittee shall develop and submit to the Agency a Phosphorus Discharge Optimization Plan within 18 months of the effective date of this permit. The plan shall include a schedule for the implementation of the selected optimization measures. Annual progress reports on the optimization of the existing treatment facilities shall be submitted to the Agency by March 31 of each year beginning 12 months from the effective date of the permit. In developing the plan, the Permittee shall evaluate a range of measures for reducing phosphorus discharges from the treatment plant, including possible source reduction measures, operational improvements, and minor facility modifications that will optimize reductions in phosphorus discharges from the wastewater treatment facility.

The Permittee’s evaluation shall include, but not be limited to, an evaluation of the following optimization measures:

A. WWTF influent reduction measures.
    1. Evaluate the phosphorus reduction potential of users.
    2. Determine which sources have the greatest opportunity for reducing phosphorus (i.e., industrial, commercial, institutional, municipal and others).
        a. Determine whether known sources (i.e., restaurant and food preparation) can adopt phosphorus minimization and water conservation plans.
        b. Evaluate implementation of local limits on influent sources of excessive phosphorus.
B. WWTF effluent reduction measures.
    1. Reduce phosphorus discharges by optimizing existing treatment processes.
        a. Adjust the solids retention time for either nitrification, denitrification, or biological phosphorus removal.
        b. Adjust aeration rates to reduce dissolved oxygen and promote simultaneous nitrification-denitrification.
        c. Add baffles to existing units to improve microorganism conditions by creating divided anaerobic, anoxic, and aerobic zones.
        d. Change aeration settings in plug flow basins by turning off air or mixers at the inlet side of the basin system.
        e. Minimize impact on recycle streams by improving aeration within holding tanks.
        f. Reconfigure flow through existing basins to enhance biological nutrient removal.
        g. Increase volatile fatty acids for biological phosphorus removal.

SPECIAL CONDITION 18. The Permittee shall, within 18 months of the effective date of this permit, prepare and submit to the Agency a Phosphorus Removal Feasibility Study (PRFS) that identifies the method, timeframe, and costs of reducing phosphorus levels in its discharge to a level consistently meeting a potential future effluent limit of 0.5 mg/L or 0.1 mg/L. The study shall evaluate the construction and O & M costs of the application of this limit on a monthly, seasonal and annual average basis. The feasibility report shall also be shared with the Des Plaines River Watershed Workgroup. Previously submitted feasibility studies that did not include an alternative effluent limit of 0.5 mg/L or 0.1 mg/L may be amended to identify supplemental treatment technologies necessary to achieve 0.5 mg/L or 0.1 mg/L.

SPECIAL CONDITION 19. The Permittee shall monitor the wastewater effluent for Total Phosphorus, Dissolved Reactive Phosphorus, Nitrate/Nitrite, Total Kjeldahl Nitrogen (TKN), Ammonia, Total Nitrogen (calculated), Alkalinity, Specific Conductivity, Chloride and Temperature at least once a month beginning on the effective date of this permit. The Permittee shall monitor the wastewater influent for Total Phosphorus at least once a month. The results shall be submitted on electronic Discharge Monitoring Report Forms (NetDMRs) to IEPA unless otherwise specified by the IEPA.

SPECIAL CONDITION 20. This Permit may be modified to include alternative or additional final effluent limitations pursuant to an approved Total Maximum Daily Load (TMDL) Study, an approved Nutrient Assessment Reduction Plan, or an approved trading program.

SPECIAL CONDITION 21. The applicable terms and conditions of Title 35, Subtitle C, Chapter 1, Section 304.219 are hereby incorporated by reference as if fully set forth herein.

SPECIAL CONDITION 22. The requirements and conditions of Consent Order No. 99 Ch. 1070, 19th Judicial Court, Lake County, Illinois dated January 29, 2002 are hereby incorporated by reference as if fully set forth herein.

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SPECIAL CONDITION 23. The Agency shall consider all monitoring data submitted by the discharger in accordance with the monitoring requirements of this permit for all parameters, including but not limited to data pertaining to ammonia and dissolved oxygen for discharges from Discharge Number 002, to determine whether the discharges are at levels which cause, have the reasonable potential to cause or contribute to exceedances of water quality standards; and, if so, to develop appropriate water quality based effluent limitations. If the discharger wants the Agency to consider mixing when determining the need for and establishment of water quality based effluent limitations, the discharger shall submit a study plan on mixing for IEPA approval.

SPECIAL CONDITION 24. The Permittee shall work towards the goals of achieving no discharges from sanitary sewer overflows or basement back-ups and ensuring that overflows or back-ups, when they do occur do not cause or contribute to violations of applicable standards or cause impairment in any adjacent receiving water. Overflows from sanitary sewers are expressly prohibited by this permit and by Ill. Adm. Code 306.304. As part of the process to ultimately achieve compliance through the elimination of and mitigating the adverse impacts of any such overflows if they do occur, the Permittee shall (A) identify and report to IEPA all SSOs that do occur, and (B) develop, implement and submit to the IEPA a Capacity, Management, Operations, and Maintenance (CMOM) plan which includes an Asset Management strategy within twenty-four (24) months of the effective date of this Permit or review and revise any existing plan accordingly. The Permittee shall modify the Plan to incorporate any comments that it receives from IEPA and shall implement the modified plan as soon as possible. The Permittee should work as appropriate, in consultation with affected authorities at the local, county, and/or state level to develop the plan components involving third party notification of overflow events. The Permittee may be required to construct additional sewage transport and/or treatment facilities in future permits or other enforceable documents should the implemented CMOM plan indicate that the Permittee's facilities are not capable of conveying and treating the flow for which they are designed.

The CMOM plan shall include the following elements:

A. Measures and Activities:

1. A complete map and system inventory for the collection system owned and operated by the Permittee;
2. Organizational structure; budgeting; training of personnel; legal authorities; schedules for maintenance, sewer system cleaning, and preventative rehabilitation; checklists, and mechanisms to ensure that preventative maintenance is performed on equipment owned and operated by the Permittee;
3. Documentation of unplanned maintenance;
4. An assessment of the capacity of the collection and treatment system owned and operated by the Permittee at critical junctions and immediately upstream of locations where overflows and backups occur or are likely to occur; use flow monitoring and/or sewer hydraulic modeling, as necessary;
5. Identification and prioritization of structural deficiencies in the system owned and operated by the Permittee. Include preventative maintenance programs to prevent and/or eliminate collection system blockages from roots or grease, and prevent corrosion or negative effects of hydrogen sulfide which may be generated within collection system;
6. Operational control, including documented system control procedures, scheduled inspections and testing, list of scheduled frequency of cleaning (and televising as necessary) of sewers;
7. The Permittee shall develop and implement an Asset Management strategy to ensure the long-term sustainability of the collection system. Asset Management shall be used to assist the Permittee in making decisions on when it is most appropriate to repair, replace or rehabilitate particular assets and develop long-term funding strategies; and
8. Asset Management shall include but is not limited to the following elements:
    a. Asset Inventory and State of the Asset;
    b. Level of Service;
    c. Critical Asset Identification;
    d. Life Cycle Cost; and
    e. Long-Term Funding Strategy.

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.

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C. Overflow Response Plan:

1. Know where overflows and back-ups within the facilities owned and operated by the Permittee occur;
2. Respond to each overflow or back-up to determine additional actions such as clean up; and
3. Locations where basement back-ups and/or sanitary sewer overflows occur shall be evaluated as soon as practicable for excessive inflow/infiltration, obstructions or other causes of overflows or back-ups as set forth in the System Evaluation Plan.
4. Identify the root cause of the overflow or basement backup, and document to files;
5. Identify actions or remediation efforts to reduce risk of reoccurrence of these overflows or basement backups in the future, and document to files.

D. System Evaluation Plan:

1. Summary of existing SSO and Excessive I/I areas in the system and sources of contribution;
2. Evaluate plans to reduce I/I and eliminate SSOs;
3. Evaluate the effectiveness and performance in efforts to reduce excessive I/I in the collection system;
4. Special provisions for Pump Stations and force mains and other unique system components; and
5. Construction plans and schedules for correction.

E. Reporting and Monitoring Requirements:

1. Program for SSO detection and reporting; and
2. Program for tracking and reporting basement back-ups, including general public complaints.

F. Third Party Notice Plan:

1. Describes how, under various overflow scenarios, the public, as well as other entities, would be notified of overflows within the Permittee's system that may endanger public health, safety or welfare;
2. Identifies overflows within the Permittee's system that would be reported, giving consideration to various types of events including events with potential widespread impacts;
3. Identifies who shall receive the notification;
4. Identifies the specific information that would be reported including actions that will be taken to respond to the overflow;
5. Includes a description of the lines of communication; and
6. Includes the identities and contact information of responsible POTW officials and local, county, and/or state level officials.

For additional information concerning USEPA CMOM guidance and Asset Management please refer to the following web site addresses.
http://www.epa.gov/npdes/pubs/cmom_guide_for_collection_systems.pdf and
http://water.epa.gov/type/watersheds/wastewater/upload/guide_smallsystems_assetmanagement_bestpratices.pdf

SPECIAL CONDITION 25. On or before March 31 of each year, the Permittee shall submit a report to IEPA that summarizes the effluent data for BOD5 and Suspended Solids (SS) from Outfall 002 (Waukegan North Ditch). Each report shall include a statement as to how often and by how much the effluent exceeded the levels of 30 mg/l BOD5 and 30 mg/l SS on a monthly average basis, 45 mg/l BOD5 and 45 mg/l SS on a weekly average basis, and 85% removal for both parameters monthly. If the effluent exceeds any of these levels or percentage removals, then the Permittee shall also include in the report a description of the measures that the Permittee would need to implement so that discharges from Outfall 002 (Waukegan North Ditch)would either (a) be eliminated or (b) be sufficiently treated so that such discharges would comply with such limitations. The report shall also include an estimate of the costs of the measures.

SPECIAL CONDITION 26. The Permittee shall participate in the Des Plaines Watershed Workgroup (DRWW). The Permittee shall work with other watershed members of the DRWW to determine the most cost-effective means to remove dissolved oxygen (DO) and offensive condition impairments in the Des Plaines Watershed to the extent feasible.

A. The DRWW will conduct the following activities in accordance with the Plan during the term of this permit:
   1. Develop an Integrated Prioritization System (IPS) and supporting tools consisting of in-depth analysis of all chemical, physical and biological data collected in past watershed assessments to develop a library of data analysis tools and prioritization mechanisms related to future impairment restoration activities.
   2. Develop a Nutrient Assessment Reduction Plan (NARP) sequenced as follows:
      a. Develop Preliminary NARP Workplan to be utilized to plan and budget the multiyear development and completion of a DRWW NARP. The Preliminary NARP Workplan shall be completed by December 31, 2021. The Workplan shall be submitted with the annual progress report per Section (B) below.
      b. Develop DRWW NARP in accordance with the requirements in Special Condition 29.
   3. Continue comprehensive water quality monitoring program consisting of bioassessment monitoring, flow monitoring, and water column and sediment chemistry sampling and analysis; modify these programs as necessary to meet NARP objectives.

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B. The Permittee shall submit an annual progress report on the activities identified in A above, which includes the monitoring data from the previous year, to the Agency by March 31st of each year. The Permittee may work cooperatively with the DRWW to prepare a single annual progress report that is common among DRWW members.

C. In its application for renewal of this permit, the Permittee shall consider and incorporate recommended DRWW activities listed in any annual progress report or Nutrient Assessment Reduction Plan that the Permittee will implement during the next permit term.

Special Condition 27.

A. Subject to paragraph (B) below, an effluent limit of 0.5 mg/L Total Phosphorus 12 month rolling geometric mean (calculated monthly) basis (hereinafter "the Limit"), shall be met by the Permittee by January 1, 2030, unless the Permittee demonstrates that meeting such Limit is not technologically or economically feasible in one of the following manners:
    1. the Limit is not technologically feasible through the use of biological phosphorus removal (BPR) process(es) at the treatment facility; or
    2. the Limit would result in substantial and widespread economic or social impact. Substantial and widespread economic impacts must be demonstrated using applicable USEPA guidance, including but not limited to any of the following documents:
        (a) Interim Economic Guidance for Water Quality Standards, March 1995, EPA-823-95-002;
        (b) Combined Sewer Overflows – Guidance for Financial Capability Assessment and Schedule Development, February 1997, EPA-832—97-004;
        (c) Financial Capability Assessment Framework for Municipal Clean Water Act Requirements, November 24, 2014; and
        (d) any additional USEPA guidance on affordability issues that revises, supplements or replaces those USEPA guidance documents; or
    3. the Limit can only be met by chemical addition for phosphorus removal at the treatment facility in addition to those processes currently contemplated; or
    4. the Limit is demonstrated not to be feasible by January 1, 2030, but is feasible within a longer timeline, then the Limit shall be met as soon feasible and approved by the Agency; or
    5. the Limit is demonstrated not to be achievable, then an effluent limit that is achievable by the Permittee (along with associated timeline) will apply instead, except that the effluent limit shall not exceed 0.6 mg/L Total Phosphorus 12 month rolling geometric mean (calculated monthly).

B. The Limit shall be met by the Permittee by January 1, 2030, except in the following circumstances:
    1. If the Permittee develops a written plan, preliminary engineering report, facility plan, or project plan no later than January 1, 2025, to rebuild or replace the secondary treatment process(es) of the treatment facility, the Limit shall be met by December 31, 2035; or
    2. If the Permittee decides to construct/operate biological nutrient removal (BNR) process(es), incorporating nitrogen reduction, the Limit shall be met by December 31, 2035; or
    3. If the Permittee decides to use chemical addition for phosphorus removal instead of BPR, the Limit and the effluent limit of 1.0 mg/L Total Phosphorus monthly average shall be met by December 31, 2025; or
    4. If the Permittee has already installed chemical addition for phosphorus removal instead of BPR, and has a 1.0 mg/L Total Phosphorus monthly average effluent limit in its permit, or the Permittee is planning to install chemical addition with an IEPA construction permit that is issued on or before July 31, 2018, the 1.0 mg/L Total Phosphorus monthly average effluent limit (and associated compliance schedule) shall apply, and the Limit shall not be applicable; or
    5. The NARP determines that a limit lower than the Limit is necessary and attainable. The lower limit and timeline identified in the NARP shall apply to the Permittee; or
    6. If the Permittee participates in a watershed group that is developing a NARP for an impairment related to phosphorus or a risk of eutrophication, and IEPA determines that the group has the financial and structural capability to develop the NARP by the deadline specified in the NARP provisions below.

C. The Permittee shall identify and provide adequate justification of any exception identified in paragraph (A) or circumstance identified in paragraph (B), regarding meeting the Limit. The justification shall be submitted to the Agency at the time of renewal of this permit or by December 31, 2023, whichever date is first. Any justification or demonstration performed by the Permittee pursuant to paragraph (A) or circumstance pursuant to paragraph (B) must be reviewed and approved by the Agency. The Agency will renew or modify the NPDES permit as necessary. No date deadline modification or effluent limitation modification for any of the exceptions or circumstances specified in paragraphs (A) or (B) will be effective until it is included in a modified or reissued NPDES per

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D. For purposes of this permit, the following definitions are used:

1. BPR (Biological Phosphorus Removal) is defined herein as treatment processes which do not require use of supplemental treatment processes at the treatment facilities before or after the biological system, such as but not limited to, chemical addition, carbon supplementation, fermentation, or filtration. The use of filtration or additional equipment to meet other effluent limits is not prohibited, but those processes will not be considered part of the BPR process for purposes of this permit, and
2. BNR (Biological Nutrient Removal) is defined herein as treatment processes used for nitrogen and phosphorus removal from wastewater before it is discharged. BNR treatment processes, as defined herein, do not require use of supplemental treatment processes at the treatment facilities before or after the biological system, such as but not limited to, chemical addition, carbon supplementation, fermentation or filtration. The use of filtration or additional equipment to meet other effluent limits is not prohibited, but those processes will not be considered part of the BNR process for purposes of this permit.

E. The 0.5 mg/L Total Phosphorus 12 month rolling geometric mean (calculated monthly) effluent limit applies to the effluent from the treatment plant.

SPECIAL CONDITION 28. A phosphorus limit of 1.0 mg/L (Monthly Average) shall become effective eighteen (18) months from the effective date of this Permit.

In order for the Permittee to achieve the above limit, it will be necessary to modify existing treatment facilities to include biological phosphorus removal included in Construction Permit No. 2015-AB-59571 issued April 9, 2015, or chemical phosphorus removal included in Construction Permit No. 2012-AB-2347 issued February 21, 2012 and in accordance with the following schedule:

A. Achieve Monthly Concentration and Loading Effluent Limitations for Total Phosphorus	18 months from the effective date of this Permit
B. Progress Reports	6 months from the effective date of this permit and every 6 months thereafter until compliance is achieved.

This Permit may be modified, with Public Notice, to include revised compliance dates.

REPORTING

The Permittee shall submit a report no later than fourteen (14) days following the completion dates indicated for each item in the compliance schedule, indicating, a) the date the item was completed, or b) that the item was not completed, the reasons for non-completion and the anticipated completion date.

SPECIAL CONDITION 29. The Agency has determined that the Permittee's treatment plant effluent is located upstream of a waterbody or stream segment that has been determined to have a phosphorus related impairment. This determination was made upon reviewing available information concerning the characteristics of the relevant waterbody/segment and the relevant facility (such as quantity of discharge flow and nutrient load relative to the stream flow).

A phosphorus related impairment means that the downstream waterbody or segment is listed by the Agency as impaired due to dissolved oxygen and/or offensive condition (algae and/or aquatic plant growth) impairments that is related to excessive phosphorus levels.

The Permittee shall develop, or be a part of a watershed group that develops, a Nutrient Assessment Reduction Plan (NARP) that will meet the following requirements:

A. The NARP shall be developed and submitted to the Agency by December 31, 2024. This requirement can be accomplished by the Permittee, by participation in an existing watershed group or by creating a new group. The NARP shall be supported by data and sound scientific rationale.
B. The Permittee shall cooperate with and work with other stakeholders in the watershed to determine the most cost-effective means to address the phosphorus related impairment. If other stakeholders in the watershed will not cooperate in developing the NARP, the Permittee shall develop its own NARP for submittal to the Agency to comply with this condition.
C. In determining the target levels of various parameters necessary to address the phosphorus related impairment, the NARP shall either utilize the recommendations by the Nutrient Science Advisory Committee or develop its own watershed-specific target levels.

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D. The NARP shall identify phosphorus input reductions by point source discharges and non-point source discharges in addition to other measures necessary to remove phosphorus related impairments in the watershed. The NARP may determine, based on an assessment of relevant data, that the watershed does not have an impairment related to phosphorus, in which case phosphorus input reductions or other measures would not be necessary. Alternatively, the NARP could determine that phosphorus input reductions from point sources are not necessary, or that phosphorus input reductions from both point and nonpoint sources are necessary, or that phosphorus input reductions are not necessary and that other measures, besides phosphorus input reductions, are necessary.
E. The NARP shall include a schedule for the implementation of the phosphorus input reductions by point sources, non-point sources and other measures necessary to remove phosphorus related impairments. The NARP schedule shall be implemented as soon as possible, and shall identify specific timelines applicable to the Permittee.
F. The NARP can include provisions for water quality trading to address the phosphorus related impairments in the watershed. Phosphorus/Nutrient trading cannot result in violations of water quality standards or applicable antidegradation requirements.
G. The Permittee shall request modification of the permit within 90 days after the NARP has been completed to include necessary phosphorus input reductions identified within the NARP. The Agency will modify the NPDES permit, if necessary.
H. If the Permittee does not develop or assist in developing the NARP, and such a NARP is developed for the watershed, the Permittee will become subject to effluent limitations necessary to address the phosphorus related impairments. The Agency shall calculate these effluent limits by using the NARP and any applicable data. If no NARP has been developed, the effluent limits shall be determined for the Permittee on a case-by-case basis, so as to ensure that the Permittee's discharge will not cause or contribute to violations of the dissolved oxygen or narrative water quality standards.

SPECIAL CONDITION 30. The permittee shall assess whether effluent from Outfall B02 is causing an exceedance of Open Waters of Lake Michigan Standards in Lake Michigan for pH, ammonia nitrogen and total phosphorus. The permittee shall submit a report containing the results of this assessment within fifty-four (54) months from the effective date of this permit. The Agency shall consider all modeling results, monitoring data and reports in determining if there is a reasonable potential for discharges of pH, ammonia nitrogen and total phosphorus from B02 to cause exceedances of Open Waters of Lake Michigan standards in Lake Michigan and whether to include pH, ammonia nitrogen and total phosphorus limits for Outfall B02 in future permits.