

NPDES Permit No. IL0021598

Notice No. KKD:25101401

Public Notice Beginning Date: November 27, 2025

Public Notice Ending Date: December 29, 2025

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
2520 West Iles Avenue
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-0610

Name and Address of Discharger:

Village of Barrington
200 South Hough Street
Barrington, Illinois 60010

Name and Address of Facility:

Village of Barrington STP
302 North Raymond Avenue
Barrington, Illinois 60010
(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 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 Kaushal Desai 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 Barrington, Breamore, and Paganica.

The length of the Permit is approximately 5 years.

The main discharge number is B02. The seven day once in ten year low flow (7Q10) of the receiving stream, Unnamed tributary of Flint Creek is 0 cfs.

The design average flow (DAF) for the facility is 3.68 million gallons per day (MGD) and the design maximum flow (DMF) for the facility is 10.2

MGD. Treatment consists of screening, grit removal, primary clarifiers, activated sludge, secondary clarifiers, rapid sand filters, excess flow treatment, chlorine disinfection, dechlorination, post aeration, aerobic sludge digestion, sludge thickening, belt filtration, and land application of sludge.

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

The Permittee currently is participating in the Fox River Study Group (FRSG) to determine cost effective means to remove dissolved oxygen and offensive condition impairments in the Fox River to the extent feasible. Along with coordination with other watershed members of the FRSG, the Permittee shall participate in the FRSG for the completion of tasks set out in the 2022 Fox River Implementation Plan (either by the permittee or through the FRSG).

PFAS

To address Per- and polyfluoroalkyl substance (PFAS) under the NPDES permit program the Illinois Environmental Protection Agency (IEPA), Bureau of Water, Permit Section has implemented a PFAS Reduction Initiative. Under this initiative, it has been determined that those Publicly Owned Treatment Works who are classified as a major discharger by USEPA, and with the type and variety of industries that discharge to the sewer system, have the potential to receive wastewater contaminated by PFAS. To help eliminate and/or control the amount of PFAS being discharged to the sewer system, the permittee will be required to monitoring for PFAS compounds and to require Best Management Practices (BMP's) be developed by specific industrial facilities.

Monitoring will be done at the wastewater treatment plants influent, effluent and biosolids. The permit will also require BMP's be developed for those industrial facilities who have been identified by USEPA as having the potential to use and/or discharge PFAS compounds. Monitoring for PFAS has been added to the effluent limitations, monitoring, and reporting page(s) for outfalls B02 and Special Conditions 23 and 24 have been added to the permit as well.

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:

<u>Discharge Number</u>	<u>Receiving Stream</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Stream Classification</u>	<u>Integrity Rating</u>
002 (Combined flow)	Unnamed tributary of Flint Creek	42° 09' 30" North	88° 08' 43" West	General Use	Not Rated
A02 (Excess Flow)	Unnamed tributary of Flint Creek	42° 09' 30" North	88° 08' 43" West	General Use	Not Rated
B02 (Internal Outfall)	Unnamed tributary of Flint Creek	42° 09' 30" North	88° 08' 43" West	General Use	Not Rated

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

The Barrington facility discharges to unnamed tributary of Flint Creek, Waterbody Segment tributary to DTZS-01, is not listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List since it has not been assessed. From the treatment plant to Flint Creek is 0.5 stream miles in length.

Flint Creek, Waterbody Segment, DTZS-01, is listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aquatic life use with potential causes given as cause unknown, flow regime modifications (non-pollutant), aquatic algae (non-pollutant), dissolved oxygen (non-pollutant), and phosphorus and primary contact use with potential cause given as fecal coliform.

This discharge is approximately 0.05 miles upstream of Waterbody Segment, DTZS-01, which is listed as impaired with a potential cause of Aquatic Algae.

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 STP Internal Outfall

Load limits computed based on a design average flow (DAF) of 3.68 MGD (design maximum flow (DMF) of 10.2 MGD).

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

Parameter	LOAD LIMITS lbs/day DAF (DMF)*			CONCENTRATION LIMITS mg/L			Regulation	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum		
CBOD ₅ **	307 (851)		614 (1701)	10		20	35 IAC 304.120 40 CFR 133.102	
Suspended Solids**	368 (1021)		737 (2042)	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):								35 IAC 355 and 35 IAC 302
April-Oct.	37 (102)		92 (255)	1.2		3.0		
Nov.-Feb.	77 (213)		184 (510)	2.5		6.0		
March	49 (136)	123 (340)	190 (527)	1.6	4.0	6.2		
	<u>Annual Average</u>			<u>Annual Average</u>				
Total Phosphorus (as P)	31 (85)			1.0			35 IAC 304.123	
Total Nitrogen (as N)						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	
PFAS***							35 IAC 309.146	
PFAS Sum***								
				Monthly Avg. not less than	Weekly Avg. not less than	Daily Minimum		
Dissolved Oxygen								
March-July				N.A.	6.0	5.0	35 IAC 302.206	
August-February				5.5	4.0	3.5		

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

**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.

*** PFAS is required to be sampled in the influent, effluent, and biosolids as a PFAS reduction initiative and Best Management Practices (BMP) shall be developed for certain targeted industrial facilities who discharge to this POTW.

Annual Average is defined as the 12 month rolling average (calculated monthly).

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

Discharge Number(s) and Name(s): A02 STP Excess Flow Outfall (Flow in excess of 7,084 gpm)

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

<u>Parameter</u>	<u>CONCENTRATION LIMITS (mg/L)</u>		<u>Regulation</u>
	<u>Monthly Average</u>	<u>Weekly Average</u>	
Fecal Coliform	Daily Maximum Shall Not Exceed 400 per 100 mL		35 IAC 304.121
BOD ₅	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 Discharge from A02 and B02 Outfall

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

<u>Parameter</u>	<u>CONCENTRATION LIMITS (mg/L)</u>		<u>Regulation</u>
	<u>Monthly Average</u>	<u>Weekly Average</u>	
BOD ₅ *	30	45	40 CFR 133.102
Suspended Solids*	30	45	40 CFR 133.102
pH	Shall be in the range of 6 to 9 Standard Units		35 IAC 304.125
Chlorine Residual	0.75		35 IAC 304.208
Ammonia Nitrogen (as N)	Monitor Only		35 IAC 355 and 35 IAC 302
Total Phosphorus (as P)	Monitor Only		35 IAC 309.146
Dissolved Oxygen	Monitor Only		35 IAC 302.206

*The 30-day average percent removal shall not be less than 85 percent.

Special Condition 18 of the City of Barrington's previous permit required participation in the Fox River Study Group (FRSG) to determine the most cost-effective means to remove dissolved oxygen (DO) and offensive condition impairments in the Fox River to the extent feasible. The Permittee was required to follow the tasks set out in the 2015 Fox River Implementation Plan (either by the permittee or through the FRSG) in accordance with the following action items and schedule:

1. Work with the Army Corps of Engineers and Illinois Department of Natural Resources to restart the Fox River Habitat & Connectivity Study.
2. Collect continuous dissolved oxygen data and other water quality parameters at the Algonquin Bike Bridge from May through September 2018 to update the FRSG's water quality model.
3. Analyze Fox River and Major Tributary Water Quality Data and Trends, for the period 1998-2016 by December 31, 2018.
4. Update the Fox River DB database with newly collected data, by July 31, 2019.
5. Amend the modeling and use the modified model to reevaluate water quality improvement scenarios, by August 31, 2019.
6. Amend the Implementation Plan by December 31, 2022, based on the improved modelling and which will include proposed watershed improvement projects.

In response to the permit requirement, the FRSG submitted the Fox River Implementation Plan (FRIP) on December 30, 2022. The summary of the plan is given below.

The Fox River, spanning Wisconsin through Northeastern Illinois to its confluence with the Illinois River, provides drinking water for public water supplies, supports diverse aquatic ecosystems, and recreation for surrounding communities. The river is impacted by the presence of dams, discharge of treated wastewater effluent, and urban and agricultural stormwater runoff.

The Fox River watershed covers approximately 2,658 square miles, with 1,720 square miles in Illinois alone. This watershed supports a mix of rural, urban, and natural landscapes. The Fox River currently receives an estimated 1.9 million pounds of total phosphorus annually, primarily from agricultural runoff, wastewater treatment plants, and urban stormwater sources. Excessive phosphorus contributes to algal blooms, dissolved oxygen (DO) deficiencies, and other water quality impairments that impact aquatic life and human use.

In response, the Fox River Study Group (FRSG), a group of municipalities, and interested stakeholders, developed the Fox River Implementation Plan (FRIP). Originally released in 2015 and updated in 2022, the FRIP's primary goal is to address the river's impairments, including excessive nutrient loading, dissolved oxygen (DO) deficiencies, and nuisance algae growth. The plan outlines action items to improve water quality and ensure the river uses are maintained.

The FRIP outlines stakeholder engagement, modeling and adaptive management to focus on reducing total phosphorus, upgrading wastewater treatment plants (WWTPs), and implementing urban and agricultural best management practices (BMPs). It also prioritizes dam removal and riparian restoration to improve river flow and aquatic habitats.

The following summary highlights the elements of the FRIP, its proposed management actions, and its vision for a revitalized Fox River watershed.

Summary of Fox River Implementation Plan

The FRIP addresses water quality impairments in the Fox River, focusing on:

- Dissolved Oxygen (DO) impairments.
- Nuisance algae growth.
- Total Phosphorus.

Watershed Area

- Geographic Scope: A 98-mile stretch of the Fox River from Stratton Dam to the Illinois River.
- Land Use: 59% rural, 30% urban, and 11% forested, wetland, or surface water.
- Significance:
 - Provides drinking water for 300,000 residents.
 - Supports recreation and wildlife habitats.
 - Impacted by:

- 13 dams along the mainstem.
 - Wastewater treatment plant (WWTP) discharges.
 - Agricultural and urban runoff.
-

Water Quality Status

1. **Nutrient loads:**
 - WWTPs contributed 53% of total phosphorus loads, reduced to 37% in recent years through upgrades.
 - Agricultural runoff contributes 42% of total phosphorus load.
 - Urban stormwater and upstream sources further increase nutrient loads.
 2. **DO and Algae Impairments:**
 - Excess total phosphorus contributes to nuisance algae blooms, degrading water quality and aesthetic impairments.
 - DO deficiencies in impounded areas and algae issues threaten aquatic life and algae issues.
 3. **Dam Impacts:**
 - Dams disrupt river flow, lowering DO levels and promoting algae blooms.
-

Action Items

1. Monitoring and Analysis

- **Water Quality Trends:**
 - Total phosphorus and chlorophyll-*a* levels are decreasing in the mainstem but remain problematic in tributaries (Poplar Creek and Blackberry Creek).
- **Modeling Improvements:**
 - Updated QUAL2kw models to simulate nutrient and DO changes.
 - HSPF watershed models to reflect current conditions.

2. Recommendations

The FRIP outlines several recommendations to address nutrient sources and flow impairments:

- **WWTP Upgrades:**
 - Reduce total phosphorus effluent limits to 1.0 mg/L (by 2022) and 0.5 mg/L (by 2030).
 - Significant reductions in point-source total phosphorus contributions are anticipated.
- **Agricultural Best Management Practices (BMPs):**
 - Promote agricultural BMPs (cover crops, no-till farming, and nutrient management to reduce runoff).
- **Urban Stormwater Controls:**
 - Implement green infrastructure (e.g., bioswales, permeable pavements) and retrofitting in high-total phosphorus urban subwatersheds.
- **Dam Removal and Riparian Restoration:**
 - Prioritize removing dams, including Carpentersville and North Aurora, to improve flow, increase DO levels, and support aquatic migration.
 - Stabilize riverbanks and reduce sedimentation through riparian restoration.

3. Implementation Schedule

- **Pre-2032:**
 - Focus on WWTP upgrades, dam removals, agricultural BMP adoption, and stakeholder engagement.
- **Post-2032:**
 - Continue monitoring and refine action items based on observed results.
 - Analyze further dam removals and management actions.

4. Adaptive Management

- Regularly update actions based on monitoring results and evolving conditions.
 - Updated phosphorus source evaluations.
 - Continuous modeling and monitoring of flow, sediment, and nutrients.

5. Stakeholder Engagement

The plan is coordinated by the Fox River Study Group (FRSG), involving:

- Municipalities, WWTPs, and planning agencies.
- Environmental organizations and state/federal agencies.
- Local communities and researchers.

Expected Outcomes

1. **Nutrient Reduction:**
 - Significant total phosphorus reductions through WWTP upgrades, BMPs, and stormwater controls.
2. **Improved Water Quality:**
 - Enhanced DO levels, reduced algae blooms, and improve aquatic ecosystems.
3. **Sustainable Management:**
 - Adaptive strategies as based on future information and modeling to continue to ensure long-term success of the FRIP goals.

Agency Conclusion

The Fox River Implementation Plan (FRIP) outlines an approach to address water quality and aquatic life in the Fox River watershed by addressing both point and nonpoint sources of total phosphorus and other environmental stressors. The FRIP recommends wastewater treatment plant upgrades, urban and agricultural best management practices (BMPs), dam removal, and adaptive management. Along with continuing stakeholder engagement, monitoring, and adaptive management to meet long-term objectives of the plan.

The FRIP recommends a total phosphorus effluent concentration of 0.5 mg/L by 2030. No instream total phosphorus target is identified; however, an instream target was not a requirement of the Fox River watershed NPDES permits. The Fox River Study Group and their FRIP met all components required by their previous NPDES permit. The IEPA recognizes the Illinois Nutrient Science Advisory Committee (NSAC) numeric criteria of 0.113 mg/L which ranges between 0.033 mg/L (lower 95% confidence limit) and 0.193 mg/L (upper 95% confidence limit). The IEPA also recognizes that instream monitoring, future modeling and model calibration will continue as more data becomes available and as watershed projects are completed. This analysis will validate scenarios modeled in the FRIP and validate the effectiveness of watershed activities implemented. Should sampling and modeling results and/or final implementation of the FRIP determine the proposed plan and corresponding action items does not remove dissolved oxygen and offensive condition impairments in the Fox River, a revised FRIP along with further analysis and/or identifying an instream target may be necessary. The Permittee may consider a Time Limited Water Quality Standard to implement the FRIP now or in the future, if current FRIP implementation measures are not sufficient to address the DO and offensive conditions

The fox River Study Group has demonstrated that reducing TP effluent concentrations to 0.5 mg/L and implementing non-point source BMPs is adequate to address DO and offensive conditions. Implementation of the FRIP objectives outlined in the implementation schedule are intended to be protective of water quality standards upon final completion (2032).

The permittee should also consider total nitrogen reductions by continuing optimization efforts with their existing facility. As well as participate in the Illinois River Study Group as an individual Permittee or represented by the DRSCW.

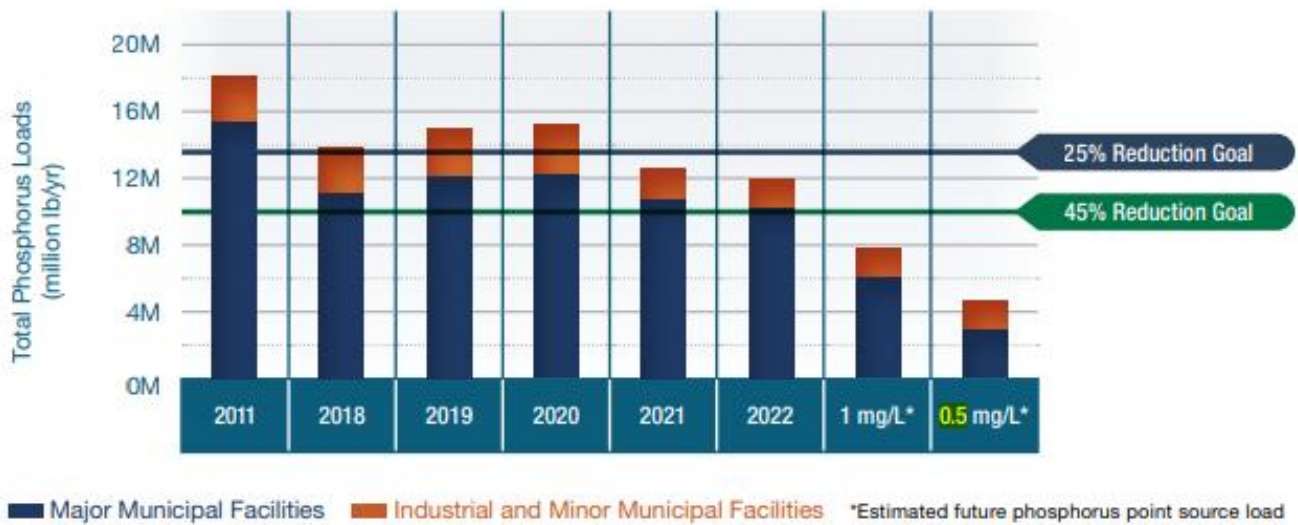
Special Condition 18 of the draft permit requires the City of Barrington to continue to participate in the Fox River Study Group to determine the most cost-effective means to remove dissolved oxygen and offensive condition impairments in the Fox River to the extent feasible. The permit special condition requires the Permittee, along with the FRSG, to implement the 2022 Fox River Implementation Plan (paragraph A)

and submit annual progress reports (paragraph (B)).

The Permittee shall also continue to maintain and implement any recommendations from its Phosphorus Discharge Optimization Plan in accordance with the schedule set forth in the Plan.

Reducing total phosphorus loads from the point source sector is especially important to the Illinois Nutrient Loss Reduction Strategy, NLRS. According to the original strategy published in 2015, nutrient loading from the point source sector represented almost half of the statewide total for phosphorus compared with just 16% for nitrate-nitrogen. The last decade has seen substantial phosphorus reduction achievements in the point source sector. The strategy set a goal of a 25% reduction of phosphorus from the 2011 baseline for the point source sector by 2025. In 2022, the point source sector reduced its phosphorus discharge by 34%, or a total of 6.2 million pounds. The 2022 estimated annual statewide total phosphorus load from point sources was 11.9 million pounds.

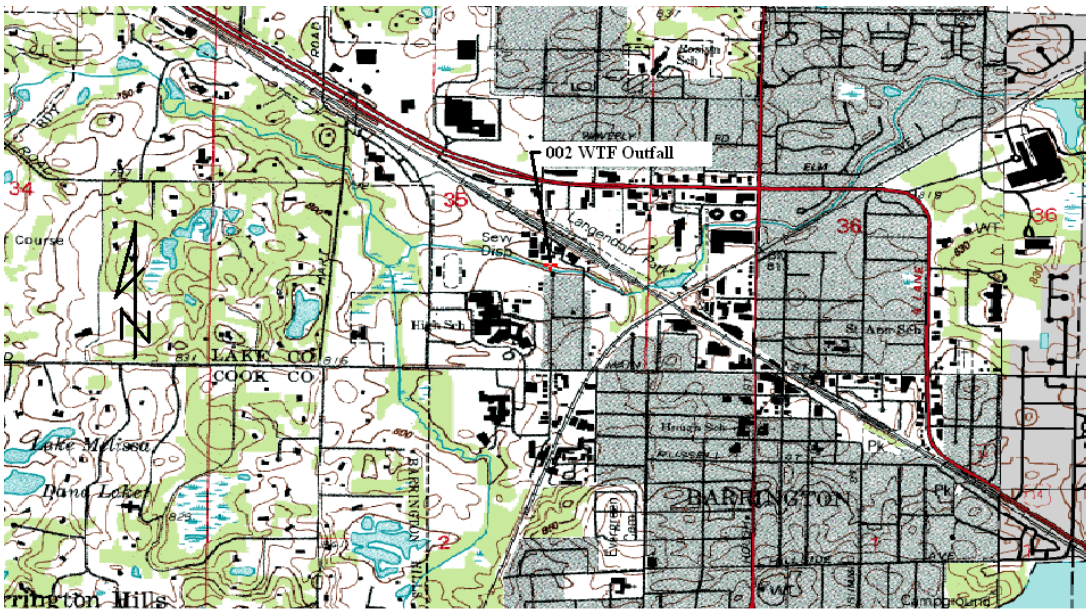
Estimates of future point source loads if all major municipal facilities were meeting 1 mg/L and 0.5 mg/l total phosphorus concentrations in their discharge. These estimated loads are based on each facility's 2022 discharge flow data calculated using total phosphorus concentrations of 1.0 mg/L and 0.5 mg/L. As of 2023, 46 facilities had total phosphorus annual average concentration at or below 0.5 mg/L in 2022.



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.
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. Controlling the sources of infiltration and inflow into the sewer system.
10. Seasonal fecal coliform limits.
11. Monitoring for arsenic, barium, cadmium, hexavalent chromium, total chromium, copper, available 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. Submission of annual fiscal data.
13. A requirement for biomonitoring of the effluent.
14. Reissued Capacity, Management, Operations, and Maintenance (CMOM) plan.
15. Submission of semi annual reports indicating the quantities of sludge generated and disposed.
16. Reopening of this Permit to include revised effluent limitations based on a Total Maximum Daily Load (TMDL) or other water quality study.
17. Reissued Phosphorus Discharge Optimization plan.
18. A requirement for participation in the Fox River Study Group. (new narp)
19. Monitoring for total phosphorus, dissolved phosphorus, nitrate/nitrite, total kjeldahl nitrogen (TKN), ammonia, total nitrogen (calculated), alkalinity and temperature once a month.
20. Optimization of biological nutrient removal (BNR) facilities.
21. Reasonable potential analysis and mixing study plan.
22. Requirement to meet 0.5 mg/L phosphorus limit by January 1, 2030.
23. PFAS Testing and Reporting
24. PFAS Reduction Program
25. Burden Reduction



Barrington Wastewater Treatment Facility
NPDES Permit No. IL0021598
Lake County

NPDES Permit No. IL0021598

Illinois Environmental Protection Agency

Division of Water Pollution Control

2520 West Iles Avenue

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:

Village of Barrington
200 South Hough Street
Barrington, Illinois 60010

Facility Name and Address:

Village of Barrington STP
302 North Raymond Avenue
Barrington, Illinois 60010
(Lake County)

Receiving Waters: Unnamed tributary of Flint 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 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:KKD:25101401

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): B02 STP Internal Outfall

Load limits computed based on a design average flow (DAF) of 3.68 MGD (design maximum flow (DMF) of 10.2 MGD).

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

Parameter	LOAD LIMITS lbs/day			CONCENTRATION			Sample Frequency	Sample Type	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum			
Flow (MGD)							Continuous		
CBOD ₅ *****	307 (851)		614 (1701)	10		20	2 Days/Week	Composite	
Suspended Solids****	368 (1021)		737 (2042)	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-May/Sept.-Oct.	37 (102)		92 (255)	1.2		3.0	2 Days/Week	Composite	
Nov.-Feb.	77 (213)		184 (510)	2.5		6.0	2 Days/Week	Composite	
March	49 (136)	123 (340)	190 (527)	1.6	4.0	6.2	2 Days/Week	Composite	
	<u>Annual Average</u>			<u>Annual Average</u>					
Total Phosphorus (as P) *****	13 (31)			1.0		Monitor Only	1 Day/Week	Composite	
PFAS*****							*****	*****	
PFAS Sum*****							*****	*****	
Total Nitrogen (as N)						Monitor only	1 Day/Month	Composite	
Dissolved 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	
				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	

(Continued)

NPDES Permit No. IL0021598

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): B02 STP Internal Outfall (Continued)

*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.

****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. 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.

***** See Special Condition 23.

***** See Special Condition 22

The Annual Average, 12 month rolling average (calculated monthly), total phosphorus limit shall be computed monthly and reported beginning January 1, 2030 (See Special Condition 22). The Annual Average shall be calculated by adding the sum of the total phosphorus monitoring values from the previous 12 months of data expressed in milligrams/liter and divided by the number of samples collected. The Annual Average value for total phosphorus shall be reported on the DMR. Total Phosphorus shall also be monitored and reported on the DMR as a daily maximum value beginning from the effective date of this permit. Upon the effective date of the phosphorus effluent limits, the sampling frequency shall increase to 2 Days/Week.

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.

Total Nitrogen shall be reported on the DMR as a daily maximum value. Total Nitrogen is the sum total of Total Kjeldahl Nitrogen, Nitrate, and Nitrite.

NPDES Permit No. IL0021598

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Names(s): A02 STP Excess Flow Outfall* (Flow in excess of 7,084 gpm)

These flow facilities shall not be utilized until the main treatment facility is receiving its design maximum flow (DMF)* (flow in excess of 27,084 gpm).

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 time as follows:

<u>Parameter</u>	<u>CONCENTRATION</u>		<u>Sample Frequency</u>	<u>Sample Type</u>
	<u>Monthly Average</u>	<u>Weekly Average</u>		
Total Flow (MG)			Daily When Discharging	Continuous
Fecal Coliform	Daily Maximum Shall not Exceed 400 per 100 mL		Daily When Discharging	Grab
BOD ₅	Monitor Only	Monitor Only	Daily When Discharging	Grab
Suspended Solids	Monitor Only	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.

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

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

Ammonia Nitrogen shall be reported on the DMR as a monthly average value.

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

NPDES Permit No. IL0021598

Influent Monitoring and Reporting

Final

Discharge Number(s) and Name(s): 002 Combined Discharge from A02 and B02 Outfall*

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)

<u>Parameter</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Sample Frequency</u>	<u>Sample Type</u>
Total Flow (MG)			Daily When A02 is Discharging	Continuous
BOD ₅ **	30	45	Daily When A02 is Discharging	Grab
Suspended Solids**	30	45	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
Ammonia Nitrogen (as N)***	Monitor Only		Daily When A02 is Discharging	Grab
Total Phosphorus (as P)	Monitor Only		Daily When A02 is Discharging	Grab
Dissolved Oxygen	Monitor Only	Monitor Only	Daily When A02 is Discharging	Grab

*An explanation shall be provided in 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.

** 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 and USEPA 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.

***See Special Condition 19.

Total flow in million gallons shall be reported on the Discharge Monitoring Report (DMR) in the quantity maximum column.

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

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

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

Chlorine Residual shall be reported on the DMR as monthly average.

Total Phosphorus shall be reported on the DMR as a monthly average.

A monthly average value for ammonia shall be computed for each month that A02 discharges beginning one month after the effective date of the permit. A monthly average concentration shall be determined by combining data collected from 002 and B02 (only B02 data from days when A02 is not discharging) for the reporting period. These monitoring results shall be submitted to the Agency on the DMR.

Ammonia Nitrogen shall also be reported on the DMR as a maximum value.

A monthly and weekly average value for Dissolved Oxygen (DO) shall be computed for each month that A02 discharges beginning one month after the effective date of the permit. The monthly and weekly average concentrations for 002 shall be determined by combining data collected from 002 and B02 (only B02 data from days when A02 is not discharging) for the reporting period. These monitoring results shall be submitted to the Agency on the DMR. DO shall also be reported on the DMR as a minimum value.

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Influent Monitoring and Reporting

Final

The influent to the plant shall be monitored as follows:

<u>Parameter</u>	<u>Sample Frequency</u>	<u>Sample Type</u>
Flow (MGD)	Continuous	
BOD ₅	2 Days/Week and daily when A02 is discharging	Composite
Suspended Solids	2 Days/Week and daily when A02 is discharging	Composite
Total Phosphorus (as P)	2 Days/Week and daily when A02 is discharging	Composite
PFAS*	*	*
PFAS Sum*	*	*

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.

* See Special Condition 23

Biosolids Monitoring and Reporting

Biosolids shall be monitored as follows:

<u>Parameter</u>	<u>Sample Frequency</u>	<u>Sample Type</u>
PFAS*	*	*
PFAS Sum*	*	*

* See Special Condition 23

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://epa.illinois.gov/topics/water-quality/surface-water/netdmr.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 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
2520 West Iles Avenue
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:

- A. 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.
- B. 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.
- C. 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 CONDITION 9. Consistent with permit modification procedures in 40 CFR 122.62 and 63, this Permit may be modified to include requirements for the Permittee on a continuing basis to evaluate and detail its efforts to effectively control sources of infiltration and inflow into the sewer system and to submit reports to the IEPA if necessary.

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SPECIAL CONDITION 10. Fecal Coliform limits for Discharge Number B02 are effective May thru October. Sampling of Fecal Coliform is only required during this time period.

For Discharge No. 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. 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 provided below and the results shall be submitted on Discharge Monitoring Report (DMR) electronic forms, unless otherwise specified by the IEPA. The parameters to be sampled and the minimum reporting limits to be attained are as follows:

<u>STORET CODE</u>	<u>PARAMETER</u>	<u>Minimum reporting limit</u>
01002	Arsenic	0.05 mg/L
01007	Barium	0.5 mg/L
01027	Cadmium	0.001 mg/L
01032	Chromium (hexavalent) (grab)	0.01 mg/L
01034	Chromium (total)	0.05 mg/L
01042	Copper	0.005 mg/L
00720	Cyanide (total) (grab)***	5.0 µg/L
00722	Cyanide (grab) (available**** or amenable to chlorination)***	5.0 µg/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

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.

*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.

***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.

The Permittee shall sample and analyze the effluent for the pollutants identified in 40 CFR Appendix J, Table 2. Provide data from a minimum

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of 3 samples taken within four and one-half years prior to the expiration of this Permit. Samples must be representative of the seasonal variation in the discharge. All samples must be collected and analyzed in accordance with analytical methods approved under 40 CFR Part 136. Sample results shall be submitted with the application for renewal of this Permit.

The Permittee must provide notice of any new introduction of pollutants from an indirect discharger which would be subject to Section 301 or 306 of the Clean Water Act as if it were directly discharging these pollutants and any substantial change in the volume or character of pollutants being introduced by a source introducing pollutants at the time of issuance of this Permit. The notice must include information on the quality and quantity of effluent introduced and any anticipated impact of the change on the quantity or quality of the effluent to be discharged.

The Permittee shall provide a report briefly describing the permittee's pretreatment activities and an updated listing of the Permittee's significant industrial users. The list should specify which categorical pretreatment standards, if any, are applicable to each Industrial User. Permittees who operate multiple plants may provide a single report. Such report shall be submitted within six (6) months of the effective date of this Permit to the following addresses:

U.S. Environmental Protection Agency
Region 5
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Water Assurance Branch Enforcement and Compliance

Illinois Environmental Protection Agency
Division of Water Pollution Control
Attention: Compliance Assurance Section, Mail Code #19
2520 West Iles Avenue
Post Office Box 19276
Springfield, Illinois 62794-9276

SPECIAL CONDITION 12. 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 13. The Permittee shall conduct biomonitoring of the effluent from Discharge Number(s) B02.

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 Edition) EPA/821-R-02-012, October 2002, and Whole Effluent Toxicity Methods Errata Sheet EPA/821-R-02-012-ES, December 2016. 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.
- C. Reporting – Results shall be reported according to EPA/821-R-02-012, Section 12, Report Preparation, and shall be emailed to EPA.PrmtSpecCondtns@Illinois.gov with "IL0021598 Special Condition 13" as the subject of the email 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. The respective period in the testing schedule for which a report is being provided to Agency shall be clearly indicated as applicable on the first page of the report, for example, the *biomonitoring report for the 18th month, 15th month, 12th month, or 9th month*.
- 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

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(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 $\geq 50\%$ 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 of such requirement. The Permittee shall implement the plan within ninety (90) days of IEPA approval 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 14. 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. 35 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) update the existing Capacity, Management, Operations, and Maintenance (CMOM) plan at least annually and maintain it at the facility for review during Agency Field Operations Section inspections. The Permittee shall submit copies of the CMOM to the IEPA upon written request. 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

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3. Maintain a summary of CMOM activities.

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_bestpractices.pdf

SPECIAL CONDITION 15. 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 U.S. EPA and 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 this permit or the Sludge Permit, the results of this monitoring shall

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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
2520 West Iles Avenue
Post Office Box 19276
Springfield, Illinois 62794-9276

SPECIAL CONDITION 16. 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 Implementation Plan, or an approved trading program.

SPECIAL CONDITION 17. The Permittee shall maintain and implement a Phosphorus Discharge Optimization Plan. The plan shall include a schedule for the implementation of these optimization measures. Annual progress reports on the optimization of the existing treatment facilities shall be submitted electronically to EPA.PrmtSpecCondtns@illinois.gov with "IL0021598 Special Condition 17" as the subject of the email by March 31 of each year. As part of 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 participate in the Fox River Study Group (FRSG) to determine the most cost-effective means to remove dissolved oxygen (DO) and offensive condition impairments in the Fox River to the extent feasible. The Permittee is required to follow the tasks set out in the 2022 Fox River Implementation Plan (either by the permittee or through the FRSG) in accordance with the following action items and schedule:

The Permittee shall implement the recommendations of the 2022 Fox River Implementation Plan that are applicable to said Permittee during the term of this Permit.

- A. The Permittee shall implement the recommendations of the 2022 Fox River Implementation Plan that are applicable to said Permittee during the term of this Permit.

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- B. The FRSG will conduct these activities during the term of the permit:
1. Work with the Army Corps of Engineers and the Illinois Department of Natural Resources to complete the Fox River Habitat & Connectivity Study.
 2. Collect continuous dissolved oxygen data and other water quality parameters at the Stratton Dam from April through September 2032 to utilize for evaluating impacts of actions taken and for any future updates to the FRSG's water quality model. Complete Fox River and Major Tributary Water Quality Data and Trends report for the period 2003 to 2026 by November 30, 2029.
 3. Update the Fox River DB database with newly collected data by November 30, 2027, and November 30, 2028.
 4. Support the continued monthly FRSG in-kind water quality monitoring efforts utilized for ongoing modeling and trends analysis.
 5. Support localized pre- and post-monitoring of dam removal as needed to provide updated water quality and freshwater mussel information. Fund post-monitoring of water quality and mussel population of Carpentersville dam removal. Coordinate with IDNR and IEPA for fish and macroinvertebrate Carpentersville dam post-removal monitoring.
- C. The Permittee shall submit an annual progress report on the activities identified in Item A above, and any informational meetings held, and feedback received, to the Agency by March 31 of each year. The Permittee may work cooperatively with the FRSG to prepare a single annual progress report that is common among FRSG permittees.
- D. In its application for renewal of this permit, the Permittee shall consider and incorporate recommended FRSG activities listed in the Implementation Plan that the Permittee will implement during the next permit term.
- E. Upon final implementation of the FRIP or if information becomes available that causes the Agency to conclude that the effluent authorized to discharge under this Permit do not meet the requirements of this Special Condition, or are causing or contributing to a risk of eutrophication or are causing use impairment in the receiving water(s), the Agency will notify the Permittee in writing or through future permit renewals. Upon receiving such notification, the Permittee or FRSG shall develop and implement a revised FRIP for assuring that effluent discharges from this Permit are protective of water quality standards including dissolved oxygen (DO) and offensive condition impairments in the Fox River watersheds. The revised FRIP shall consider identifying an instream total phosphorus threshold, including recommendations from Illinois Nutrient Science Advisory Committee.

SPECIAL CONDITION 19. 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 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. The Permittee shall operate the facilities consistent with its design parameters for biological nutrient removal (BNR). Monitoring for Total Nitrogen is required to document the actual total nitrogen effluent concentration. The Permittee shall monitor the influent and effluent for total nitrogen once per month. The monitoring shall be a composite sample and the results reported as a monthly average and a daily maximum on the Permittee's Discharge Monitoring Forms.

SPECIAL CONDITION 21. 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 to the Agency for the Agency's review.

SPECIAL CONDITION 22. An effluent limit of 0.5 mg/L Total Phosphorus 12 month rolling geometric mean (calculated monthly), (hereinafter Limit) will be applicable to the Permittee beginning January 1, 2030.

- | | |
|---|---|
| 1. Interim Status Report | 12 months from the effective date of this Permit and every 12 months thereafter |
| 8. Achieve compliance with the 0.5 mg/L Total Phosphorus 12 month rolling geometric mean (calculated monthly) (hereinafter "Limit") | January 1, 2030 |

Special ConditionsREPORTING

The Permittee shall submit progress reports electronically to EPA.PrmtSpecCondtns@illinois.gov with "IL0021598 Special Condition 22" as the subject of the email for 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 to the Agency Compliance Section.

SPECIAL CONDITION 23.

1. PFAS Sample Frequency and Type of Sample.

Sampling Point	Sample Frequency	Sample Type	Report
Effluent	Quarterly*	Grab***	ng/L
Influent	Quarterly*	Grab***	ng/L
Biosolids	Semiannually**	Grab	ug/kg

* Quarterly sampling – Testing done during the first quarter (January – March) must be reported on the April Electronic Discharge Monitoring Report (NetDMR), testing done in the second quarter (April – June) must be reported on the July NetDMR, testing done in the third quarter (July – September) must be reported on the October NetDMR, and testing done in the fourth quarter (October – December) must be reported on the January NetDMR.

** Semiannually sampling – Testing done during the first half of each year (January through June) must be reported on the July NetDMR and sampling taken during the second half of each year (July through December) must be reported on the January NetDMR.

*** If the permittee prefers to collect a composite sample instead of a grab sample, the composite sample shall be a manual composite consisting of a minimum of 4 separate grab samples that will be manually mixed at the lab for analysis. Composite samples shall not be collected using the typical automatic composite sampling equipment. All samples shall be collected during dry weather flow, during normal business hours.

- Influent and Effluent test results must be reported in nanograms per liter (ng/L) as a daily maximum concentration. Biosolids test results must be reported in micrograms per kilograms (ug/kg) as a daily maximum load.
- Monitoring for Per- and polyfluoroalkyl Substances (PFAS) shall be performed using USEPA 3rd draft test method 1633 or subsequent draft test method. Upon USEPA's final approval and incorporation under 40 CFR 136, the approved method shall be used for PFAS testing.
- The Minimum Level (ML) of Detection identified in paragraph 6) of this Special Condition is based on the USEPA's 3rd Draft Method 1633, dated December 2022. The permittee shall use these minimum levels of detection until they are replaced by subsequent draft methods, or a final method is defined under 40 CFR 136. At that time of update the permittee shall use the revised minimum level of detection values as part of this permit.
- Following two years of quarterly sampling, the permittee may request a reduction in testing frequency, or an elimination of testing, by filing an NPDES permit modification request with the Agency. Quarterly sampling shall continue until such time as the Agency modifies the NPDES permit to either reduce or eliminate the quarterly sampling requirement.
- Specific PFAS constituents that must be tested for, and reported on, are listed in the following table:

Target Analyte Name	Abbreviation	CAS Number	STORET	Minimum Level (ML) of Detection	
				Aqueous (ng/L)	Solids (ng/g)
Perfluoroalkyl carboxylic acids					
Perfluorobutanoic acid	PFBA	375-22-4	51522	2.0	0.8
Perfluoropentanoic acid	PFPeA	2706-90-3	51623	2.0	0.4
Perfluorohexanoic acid	PFHxA	307-24-4	51624	2.0	0.2
Perfluoroheptanoic acid	PFHpA	375-85-9	51625	2.0	0.2

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Perfluorooctanoic acid	PFOA	335-67-1	51521	2.0	0.2
Perfluorononanoic acid	PFNA	375-95-1	51626	2.0	0.2
Perfluorodecanoic acid	PFDA	335-76-2	51627	2.0	0.2
Perfluoroundecanoic acid	PFUnA	2058-94-8	51628	2.0	0.2
Perfluorododecanoic acid	PFDoA	307-55-1	51629	2.0	0.2
Perfluorotridecanoic acid	PFTrDA	72629-94-8	51630	2.0	0.2
Perfluorotetradecanoic acid	PFTeDA	376-06-7	51631	2.0	0.2
Perfluoroalkyl sulfonic acids					
Acid Forms					
Perfluorobutanesulfonic acid	PFBS	375-73-5	52602	2.0	0.2
Perfluoropentanesulfonic acid	PFPeS	2706-91-4	52610	2.0	0.2
Perfluorohexanesulfonic acid	PFHxS	355-46-4	52605	2.0	0.2
Perfluoroheptanesulfonic acid	PFHpS	375-92-8	52604	2.0	0.2
Perfluorooctanesulfonic acid	PFOS	1763-23-1	52606	2.0	0.2
Perfluorononanesulfonic acid	PFNS	68259-12-1	52611	2.0	0.2
Perfluorodecanesulfonic acid	PFDS	335-77-3	52603	2.0	0.2
Perfluorododecanesulfonic acid	PFDoS	79780-39-5	52632	2.0	0.2
Fluorotelomer sulfonic acids					
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid	4:2FTS	757124-72-4	52605	5.0	0.8
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	6:2FTS	27619-97-2	62606	10	0.8
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid	8:2FTS	39108-34-4	52603	10	0.8
Perfluorooctane sulfonamides					
Perfluorooctanesulfonamide	PFOSA	754-91-6	51525	2.0	0.2
N-methyl perfluorooctanesulfonamide	NMeFOSA	31506-32-8	52641	2.0	0.2
N-ethyl perfluorooctanesulfonamide	NEtFOSA	4151-50-2	52642	2.0	0.2
Perfluorooctane sulfonamidoacetic acids					
N-methyl perfluorooctanesulfonamidoacetic acid	NMeFOSAA	2355-31-9	51644	2.0	0.2
N-ethyl perfluorooctanesulfonamidoacetic acid	NEtFOSAA	2991-50-6	51643	2.0	0.2
Perfluorooctane sulfonamide ethanols					
N-methyl perfluorooctanesulfonamidoethanol	NMeFOSE	24448-09-7	51642	10	2
N-ethyl perfluorooctanesulfonamidoethanol	NEtFOSE	1691-99-2	51641	20	2
Per- and Polyfluoroether carboxylic acids					
Hexafluoropropylene oxide dimer acid	HFPO-DA	13252-13-6	52612	5.0	0.8
4,8-Dioxa-3H-perfluorononanoic acid	ADONA	919005-14-4	52636	5.0	0.8
Perfluoro-3-methoxypropanoic acid	PFMPA	377-73-1	PF002	2.0	0.4
Perfluoro-4-methoxybutanoic acid	PFMBA	863090-89-5	PF006	2.0	0.4
Nonafluoro-3,6-dioxaheptanoic acid	NFDHA	151772-58-6	52626	5.0	0.4
Ether sulfonic acids					
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	9Cl-PF3ONS	756426-58-1	PF003	5.0	0.8

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11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid	11Cl-PF3OUdS	763051-92-9	PF004	5.0	0.8
Perfluoro(2-ethoxyethane)sulfonic acid	PFEESA	113507-82-7	52629	2.0	0.4
Fluorotelomer carboxylic acids					
3-Perfluoropropyl propanoic acid	3:3FTCA	356-02-5	PF001	10	1.0
2H,2H,3H,3H-Perfluorooctanoic acid	5:3FTCA	914637-49-3	PF007	20	5.0
3-Perfluoroheptyl propanoic acid	7:3FTCA	812-70-4	PF005	20	5.0

SPECIAL CONDITION 24. PFAS Reduction Program:

1) PFAS Inventory:

- a) The Permittee shall develop an inventory of those of facilities which may have the potential to contribute or discharge PFAS into the sanitary sewer system. At a minimum, facilities which fall under one or more of the following SIC (NAICS) codes must be considered for inclusion in this inventory:
- 1020 (212230), 1041 (212221), 1094 (212291), 1311 (211120), 2221 (313210), 2262 (313310), 2273 (314110), 2295 (313320), 2297 (313230), 2299 (313110), 2385 (314999), 2392 (314999), 2394 (314910), 2621 (322121), 2656 (322219), 2671 (322220), 2672 (322220), 2673 (322220), 2752 (323111), 2796 (323120), 2813 (325120), 2819 (211130, 325130, 325180), 2821 (325211), 2822 (325212), 2824 (325220), 2841 (325611), 2842 (325612), 2843 (325613), 2844 (325611), 2851 (325510), 2869 (325110, 325193, 325199), 2899 (325199, 325510, 325998), 2911 (324110), 2992 (324191), 3011 (326211), 3081 (326113), 3082 (326121), 3083 (326130), 3089 (326121), 3111 (316110), 3231 (323215, 327310), 3471 (332813), 3479 (332812), 3497 (332999), 3577 (334418), 3589 (333318), 3629 (335999), 3643 (335931), 3651 (334310), 3663 (334220), 3672 (334412), 3674 (334413), 3679 (334419), 3841 (333249), 3861 (333316), 4581 (488119), 4953 (562211, 562212, 562213, 562219), 5169 (424690), 5719 (442291), 7217 (561740), 7641 (811420), 9711 (928110).
- b) Examples of other activities that may not have specific SIC codes, but have the potential to contribute or discharge PFAS into the sewer system, and therefore must also be included when developing the inventory list are:
- Landfill leachate,
 - Firefighting training facilities,
 - Any other activities that the permittee determines are known or expected sources of PFAS.
- c) The following information must be included for each facility that is included in the inventory:
- The facility name and address,
 - List of SIC code(s), or other reasons, which require the facility to be placed on the inventory list,
 - Identification of wastewater discharges from the industrial facility which may have the potential to contribute or discharge PFAS into the sanitary sewer system,
 - Actual or estimated monthly average flow rate in gallons per day (gpd) of wastewater being discharged to the sanitary sewer system by the facility for the previous year.
- d) The Permittee must submit an initial inventory report within 12 months of the permit effective date. Subsequent annual updated reports of the inventory list will be due 12 months from the previous report due date for the term of the permit.

Information on the initial and subsequent updated inventory reports must include:

- The name, address, and NPDES permit number of the Permittee,
- The name and address of each facility on the inventory list,
- List of SIC code(s), or other reasons, for each facility which resulted in the facility to be placed on the inventory list,

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- iv) Identification of wastewater discharges at each facility which may have the potential to contribute or discharge PFAS into the sanitary sewer system,
- v) Actual or estimated monthly average flow rate in gallons per day (gpd) of wastewater being discharged to the sewer system during the previous year for each facility on the inventory list.

Annual updated reports should identify only those sites currently discharging wastewater to the sanitary sewer.

2) PFAS Reduction Initiative:

- a) Within 24 months from the effective date of the permit the Permittee shall develop and implement a PFAS reduction initiative. The reduction initiative must include PFAS loading reduction plans for facilities identified in the inventory under paragraph 1) of this Special Condition.
- b) The PFAS loading reduction plans referred to above must include, for facilities identified in the inventory, the following Best Management Practices (BMPs):
 - i) Evaluation of the potential for the facility to use products containing PFAS or have knowledge or suspect wastewater being discharged to the sewer system to contain PFAS.
 - ii) Evaluation of Pollution prevention/source reduction opportunities which may include:
 - (1) Product elimination or substitution when a reasonable alternative to using PFAS is available in the industrial process,
 - (2) Accidental discharge minimization by optimizing operations and good housekeeping practices,
 - (3) Equipment decontamination or replacement (such as in metal finishing facilities) where PFAS products have historically been used to prevent discharge of legacy PFAS following the implementation of product substitution.
 - iii) Identification of the measures being taken to reduce PFAS loading from the facility, and any available information, including facility wastewater testing for PFAS, and/or the loading reduction achieved.
- c) PFAS loading reduction plans must be reevaluated and updated on an annual basis. The updated plans must identify any changes made since the previous plan was submitted.
- d) The Permittee is required to submit a PFAS reduction report annually to the Illinois Environmental Protection Agency at the addresses identified under paragraph 3) of this permit with the first report due 36 months from the permit effective date. Subsequent annual reports shall be due 12 months following the previous report's due date.

PFAS reduction reports must include the following information:

- i) The name, address, and NPDES permit number of the Permittee,
 - ii) The name and address for each facility on the most current inventory list,
 - iii) The current PFAS loading reduction plans for each facility on the PFAS inventory list. Updated plans should include all changes made since the previous plan was submitted.
- 3) The Permittee shall submit the reports identified under paragraphs 1) and 2) of this Special Condition electronically or in writing to one of the following addresses:
- a) EPA.PrmtSpecCondtns@Illinois.gov
 - b) Illinois Environmental Protection Agency
Bureau of Water
Compliance Assurance Section
Mail Code #19
2520 West Iles Avenue
Post Office Box 19276
Springfield, Illinois 62794-9276

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SPECIAL CONDITION 25. 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 require 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.

