State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	**4952**	NAICS Code:	**221320**	SPDES Number:	**NY0255751**
Discharge Class (CL):		**07**		DEC Number:	**5-0942-00233/00001**
Toxic Class (TX):		**N**		Effective Date (EDP):	**EDP**
Major-Sub Drainage Basin:		**10 - 03**		Expiration Date (ExDP):	**EDP +5 years**
Water Index Number:	**C-15**	Item No.:	**830 - 57**	Modification Dates (EDPM):	
Compact Area:		**NEIWPCC**			

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. '1251 et.seq.)

PERMITTEE NAME AND ADDRESS					
Name:	**Town of Plattsburgh**	Attention:	**Scott Stoddard, Director of the Water & Wastewater Department**		
Street:	**151 Banker Road**				
City:	**Plattsburgh**	State:	**NY**	Zip Code:	**12901**
Email:	**scotts@townofplattsburghny.gov**	Phone:	**(518) 562-6890**		

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL														
Name:	**Cadyville Wastewater Treatment Plant**													
Address / Location:	**2097 State Route 3**										County:	**Clinton**		
City:	**Cadyville**					State:	**NY**				Zip Code:	**12918**		
Facility Location:		Latitude:	**44**	°	**41**	'	**49**	" N	& Longitude:	**73**	°	**37**	'	**54**	" W
Primary Outfall No.:	**001**	Latitude:	**44**	°	**41**	'	**46**	" N	& Longitude:	**73**	°	**37**	'	**56**	" W
Outfall Description:	**Treated Sanitary**	Receiving Water:	**Saranac River**						Class:	**A**		Standard:	**A**	

in accordance with: effluent limitations; monitoring and reporting requirements; other provisions and conditions set forth in this permit; and 6 NYCRR Part 750-1 and 750-2.

This permit and the authorization to discharge shall expire at midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal not less than 180 days prior to the expiration date shown above.

DISTRIBUTION:
BWP Permit Coordinator (permit.coordinator@dec.ny.gov)
RWE
RPA
EPA Region II (Region2_NPDES@epa.gov)
NYSEFC (sara.tully@efc.ny.gov)
DEC Water Quality Engineer (aslam.mirza@dec.ny.gov)

Permit Administrator:	Erin M. Donhauser
Address:	115 NYS Route 86 Ray Brook, NY 12977-0296
Signature	Date

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DEFINITIONS

TERM	DEFINITION
7-Day Geo Mean	The highest allowable geometric mean of daily discharges over a calendar week.
7-Day Average	The average of all daily discharges for each 7-days in the monitoring period. The sample measurement is the highest of the 7-day averages calculated for the monitoring period.
12-Month Rolling Average (12 MRA)	The current monthly value of a parameter, plus the sum of the monthly values over the previous 11 months for that parameter, divided by the number of months for which samples were collected in the 12-month period.
30-Day Geometric Mean	The highest allowable geometric mean of daily discharges over a calendar month, calculated as the antilog of: the sum of the log of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
Action Level	Action level means a monitoring requirement characterized by a numerical value that, when exceeded, triggers additional permittee actions and DEC review to determine if numerical effluent limitations should be imposed.
Compliance Level / Minimum Level	A compliance level is an effluent limitation. A compliance level is given when the water quality evaluation specifies a Water Quality Based Effluent Limit (WQBEL) below the Minimum Level. The compliance level shall be set at the Minimum Level (ML) for the most sensitive analytical method as given in 40 CFR Part 136, or otherwise accepted by the DEC.
Daily Discharge	The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for the purposes of sampling. For pollutants expressed in units of mass, the 'daily discharge' is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the 'daily discharge' is calculated as the average measurement of the pollutant over the day.
Daily Maximum	The highest allowable Daily Discharge.
Daily Minimum	The lowest allowable Daily Discharge.
Effective Date of Permit (EDP or EDPM)	The date this permit is in effect.
Effluent Limitations	Effluent limitation means any restriction on quantities, quality, rates and concentrations of chemical, physical, biological, and other constituents of effluents that are discharged into waters of the state.
Expiration Date of Permit (ExDP)	The date this permit is no longer in effect.
Instantaneous Maximum	The maximum level that may not be exceeded at any instant in time.
Instantaneous Minimum	The minimum level that must be maintained at all instants in time.
Monthly Average	The highest allowable average of daily discharges over a calendar month, calculated as the sum of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
Outfall	The terminus of a sewer system, or the point of emergence of any waterborne sewage, industrial waste or other wastes or the effluent therefrom, into the waters of the State.
Range	The minimum and maximum instantaneous measurements for the reporting period must remain between the two values shown.
Receiving Water	The classified waters of the state to which the listed outfall discharges.
Sample Frequency / Sample Type / Units	See NYSDEC's "DMR Manual for Completing the Discharge Monitoring Report for the SPDES" for information on sample frequency, type and units.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
001	All Year	Saranac River	EDP	EDP +5 years

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location Inf.	Location Eff.	
Flow	Monthly Average	6,000	GPD			Continuous	Pump Hour Meter	X		
pH	Daily Minimum	6.5	SU			1/Day	Grab		X	
	Daily Maximum	8.5	SU							
Temperature	Monthly Average	Monitor	ºF			1/Day	Grab		X	
BOD_5	Monthly Average	30	mg/L	1.5	lbs/d	1/Month	Grab	X	X	1
BOD_5	7-Day Average	45	mg/L	2.3	lbs/d	1/Month	Grab	X	X	1
Total Suspended Solids (TSS)	Monthly Average	30	mg/L	1.5	lbs/d	1/Month	Grab	X	X	1
Total Suspended Solids (TSS)	7-Day Average	45	mg/L	2.3	lbs/d	1/Month	Grab	X	X	1
Settleable Solids	Daily Maximum	0.3	mL/L			1/Day	Grab		X	
Dissolved Oxygen	Daily Minimum	5.0	mg/L			1/Week	Grab		X	
Total Phosphorus (as P)	Monthly Average	1.0	mg/L	Monitor	lbs/d	1/Month	Grab		X	2
Total Phosphorus (as P)	12-Month Rolling Average	Monitor	mg/L	0.25	lbs/d	1/Month	Calculated		X	3
EFFLUENT DISINFECTION Required All Year		Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Coliform, Fecal	30-Day Geometric Mean	200	No./ 100 mL			1/Month	Grab		X	
Coliform, Fecal	7-Day Geometric Mean	400	No./ 100 mL			1/Month	Grab		X	
Chlorine, Total Residual	Daily Maximum	2.0	mg/L			1/Day	Grab		X	4

FOOTNOTES:

1. Effluent shall not exceed 15% and 15% of influent concentration values for BOD_5 & TSS respectively.

2. This is a final effluent limitation. See Schedule of Compliance for any applicable interim effluent limitations.

3. The 12-month rolling average for total phosphorus is defined as the sum of the current month's monthly average concentration or load added to the monthly averages from the eleven previous months, divided by the number of months for which samples were collected in the 12-month period.

4. Sampling and reporting for total residual chlorine are only necessary if chlorine is used for disinfection, elsewhere in the treatment process, or the facility otherwise has reasonable potential to discharge chlorine. Otherwise, the permittee shall report NODI-9 on the DMR.

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MERCURY MINIMIZATION PROGRAM (MMP) - Type IV

On June 23, 2026, the permittee submitted a Conditional Exclusion Certification, certifying that the facility does not have any of the mercury sources listed in Part III.E. of DOW 1.3.10.

1. General – To reduce mercury effluent levels with the goal of achieving the water quality standard of 0.7 ng/L, the permittee must develop, implement, and maintain a written MMP plan, which includes the elements set forth below.
2. Conditional Exclusion Certification – A certification (Appendix C of DOW 1.3.10), signed in accordance with 6 NYCRR 750-1.8, must be submitted once every 5 years to the Regional Water Engineer and to the Bureau of Water Permits, certifying that the facility is neither a mercury source nor receives flows from a mercury source. Criteria to determine if a facility has a mercury source are as follows:
    - The facility is, or receives flow from, a Combined Sewer System (CSS) or sanitary sewer system with Type II Sanitary Sewer Overflows (SSO[1]);
    - One or more effluent samples exceed 12 ng/L, including samples taken as a result of the SPDES application process;
    - Internal or tributary waste stream samples exceed the GLCA effluent limitation and the final effluent samples are less than the GLCA due primarily to dilution by uncontaminated or less contaminated waste streams. Both components of this criterion may include samples taken as a result of the SPDES application process;
    - A SPDES permit application, or other information, indicates that mercury is handled on-site and could be discharged through outfalls;
    - Existence of outfalls that contain legacy mercury contamination;
    - The facility's collection system receives discharges from a dental and/or Categorical Industrial User (CIU[2]) that may discharge mercury;
    - The facility accepts hauled wastes; OR,
    - The facility is defined as a categorical industry that may discharge mercury. This may also include dentists, universities, hospitals, or laboratories, which have their own individual SPDES permit.
3. Control Strategy – develop and implement with the following minimum elements:
    a. Equipment and Materials – Equipment and materials (e.g., thermometers, thermostats) used by the permittee, which may contain mercury, must be evaluated by the permittee. As equipment and materials containing mercury are updated/replaced, the permittee must use mercury-free alternatives, if possible.
    b. Bulk Chemical Evaluation – for chemicals used at a rate which exceeds 1,000 gallons/year or 10,000 pounds/year, the permittee must obtain:
        i. A manufacturer's certificate of analysis;
        ii. A chemical analysis performed by a certified laboratory; OR,
        iii. A notarized affidavit that describes the substances' mercury concentration and the detection limit achieved.

    Where practicable, the permittee must only use bulk chemicals in the wastewater treatment process which contain <10 parts per billion (ppb) of mercury.

[1] These are Overflow Retention Facilities (ORFs) and are included under the 05 and 07 permit classifications.
[2] CIUs include those listed under Federal Regulation in 40 CFR Parts 405–471.

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MERCURY MINIMIZATION PROGRAM (MMP) – Type IV (Continued)

4. Status Report – An **annual** status report must be developed, in accordance with the Schedule of Additional Submittals, summarizing:

    a. Review of criteria to determine if the facility has a potential mercury source;

    b. All actions undertaken, pursuant to the control strategy, during the previous year; and

    c. Actions planned, pursuant to the control strategy, for the upcoming year.

    The first status report is due in accordance with the Schedule of Additional Submittals. The permittee must maintain a file on-site with all MMP documentation.

5. MMP Modification – the permittee must submit a permittee-initiated modification request to DEC whenever:

    a. Changes at the facility, or within the collection system, increase the potential for mercury discharges; OR,

    b. A letter from DEC identifies inadequacies in the MMP.

    The permittee may use information in the status reports, as applicable in accordance with item 3 of this MMP, as a basis for the permittee-initiated modification.

DEFINITIONS:

Potential mercury source – a source identified by the permittee that may reasonably be expected to have total mercury contained in the discharge. Some potential mercury sources include switches, fluorescent lightbulbs, cleaners, degreasers, thermometers, batteries, hauled wastes, universities, hospitals, laboratories, landfills, Brownfield sites, or raw material storage.

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DISCHARGE NOTIFICATION REQUIREMENTS

(a) The permittee shall install and maintain identification signs at all outfalls to surface waters listed in this permit, unless the Permittee has obtained a waiver in accordance with the Discharge Notification Act (DNA). Such signs shall be installed before initiation of any new discharge location.

(b) Subsequent modifications to or renewal of this permit does not reset or revise the deadline set forth in (a) above, unless a new deadline is set explicitly by such permit modification or renewal.

(c) The Discharge Notification Requirements described herein do not apply to outfalls from which the discharge is composed exclusively of storm water, or discharges to ground water.

(d) The sign(s) shall be conspicuous, legible and in as close proximity to the point of discharge as is reasonably possible while ensuring the maximum visibility from the surface water and shore. The signs shall be installed in such a manner to pose minimal hazard to navigation, bathing or other water related activities. If the public has access to the water from the land in the vicinity of the outfall, an identical sign shall be posted to be visible from the direction approaching the surface water.

The signs shall have **minimum** dimensions of eighteen inches by twenty-four inches (18" x 24") and shall have white letters on a green background and contain the following information:

N.Y.S. PERMITTED DISCHARGE POINT

SPDES PERMIT No.: NY_____

OUTFALL No. :____

For information about this permitted discharge contact:

Permittee Name: _____

Permittee Contact: _____

Permittee Phone: ( ) - ### - ####

OR:

NYSDEC Division of Water Regional Office Address:

NYSDEC Division of Water Regional Phone: ( ) - ### - ####

(e) The permittee shall provide for public review at the business office repository of the permittee or at the off-premises location of its choice, provided the custodian of the off-premise location grants written permission, (such off-premise location shall be the village, town, city or county clerk's office, local library or other location accessible by the public) all the Discharge Monitoring Reports (DMR) prepared by the permittee to demonstrate compliance with the SPDES permit conditions. A copy of each DMR shall be placed on file at such location at the same time it is sent to the department, or within 60 days of preparation for DMRs not required to be submitted to the Department. In accordance with the RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS page of your permit, each DMR shall be maintained (either electronically or as a hard copy) on record for a period of five years.

(f) The permittee shall periodically inspect the outfall identification sign(s) in order to ensure they are maintained, are still visible, and contain information that is current and factually correct. Signs that are damaged or incorrect shall be replaced within 3 months of inspection.

SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

Outfall(s)	Compliance Action	Compliance Date[3]
001	PHOSPHORUS CONCENTRATION EFFLUENT LIMITATION The Total Phosphorus monthly average effluent concentration limit of 1.0 mg/L will become effective EDP + 54 months. This requirement will be monitor only until the limit takes effect.	EDP + 54 Months
001	INTERIM PROGRESS REPORT FOR PHOSPHORUS TREATMENT[4] The permittee shall provide a status update on the *Preliminary Engineering Report*.	EDP + 9 Months
001	ENGINEERING REPORT FOR PHOSPHORUS TREATMENT The permittee shall submit an approvable[5] Engineering Report that meets the requirements of the EFC/DEC Engineering Report Outline (https://www.dec.ny.gov/permits/6054.html). The report shall describe treatment alternatives or other control mechanisms (i.e., pretreatment program / Sewer Use Law) that may be used to comply with the final effluent limitation(s) for phosphorus concentration. If wastewater treatment plant improvements are not needed for compliance with final effluent limitations, submit a certification of compliance in lieu of the PER.	EDP + 12 Months
001	INTERIM PROGRESS REPORT FOR PHOSPHORUS TREATMENT The permittee shall provide a status update for the *Design Documents*.	EDP + 21 Months
001	DESIGN DOCUMENTS FOR PHOSPHORUS TREATMENT The permittee shall submit approvable[5] Design Documents including a Basis of Design Report (BODR), Plans, Specifications, and Construction Schedule for the selected alternative that will ensure compliance with final effluent limitation(s) for *XYZ Pollutant*.	EDP + 24 Months
001	INTERIM PROGRESS REPORT FOR PHOSPHORUS TREATMENT The permittee shall provide a status update for *Complete Construction*.	EDP + 33 Months EDP + 42 Months EDP + 51 Months
001	COMPLETE CONSTRUCTION FOR PHOSPHORUS TREATMENT The permittee shall provide a Construction Completion Certification[6] to the DEC (send to the Regional Water Engineer and NetDMR@dec.ny.gov) that the disposal system has been fully completed in accordance with the approved Design Documents.	EDP + 54 Months
001	COMMENCE OPERATION FOR PHOSPHORUS TREATMENT Following receipt of DEC acceptance of the Construction Completion Certification, the permittee shall comply with the final effluent limitation(s) described in this permit for phosphorus concentration.	Upon Department Acceptance
Unless noted otherwise, the above actions are one-time requirements.		
See next page for Interim Effluent Limits.		

[3] 6 NYCRR 750-1.14 (a)
[4] 6 NYCRR 750-1.14 (b)
[5] 6 NYCRR 750 1.2 (a)(8)
[6] 6 NYCRR 750-2.10 (c)

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SCHEDULE OF COMPLIANCE – Interim Effluent Limits

OUTFALL	EXPIRING
001	EDP +54 Months or upon Department Acceptance of the Construction Completion Certification, whichever occurs first.

PARAMETER	INTERIM EFFLUENT LIMIT					MONITORING REQUIREMENTS				Notes
								Location		
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	
Total Phosphorus	Monthly Average	Monitor	mg/L	-	-	1/Month	Grab	-	X	

b) The permittee shall submit a Report of Non-Compliance Event form with each of the above schedule dates no later than 14 days following each elapsed date, unless conditions require more immediate notice as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2. All notifications shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of non-compliance shall include the following information:

1. A short description of the non-compliance;
2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirements without further delay and to limit environmental impact associated with the non-compliance;
3. Any details which tend to explain or mitigate an instance of non-compliance; and
4. An estimate of the date the permittee will comply with the elapsed schedule requirement and an assessment of the probability that the permittee will meet the next scheduled requirement on time.

c) The permittee shall submit copies of any document required by the above schedule of compliance to the DEC Regional Water Engineer and to the Bureau of Water Permits.

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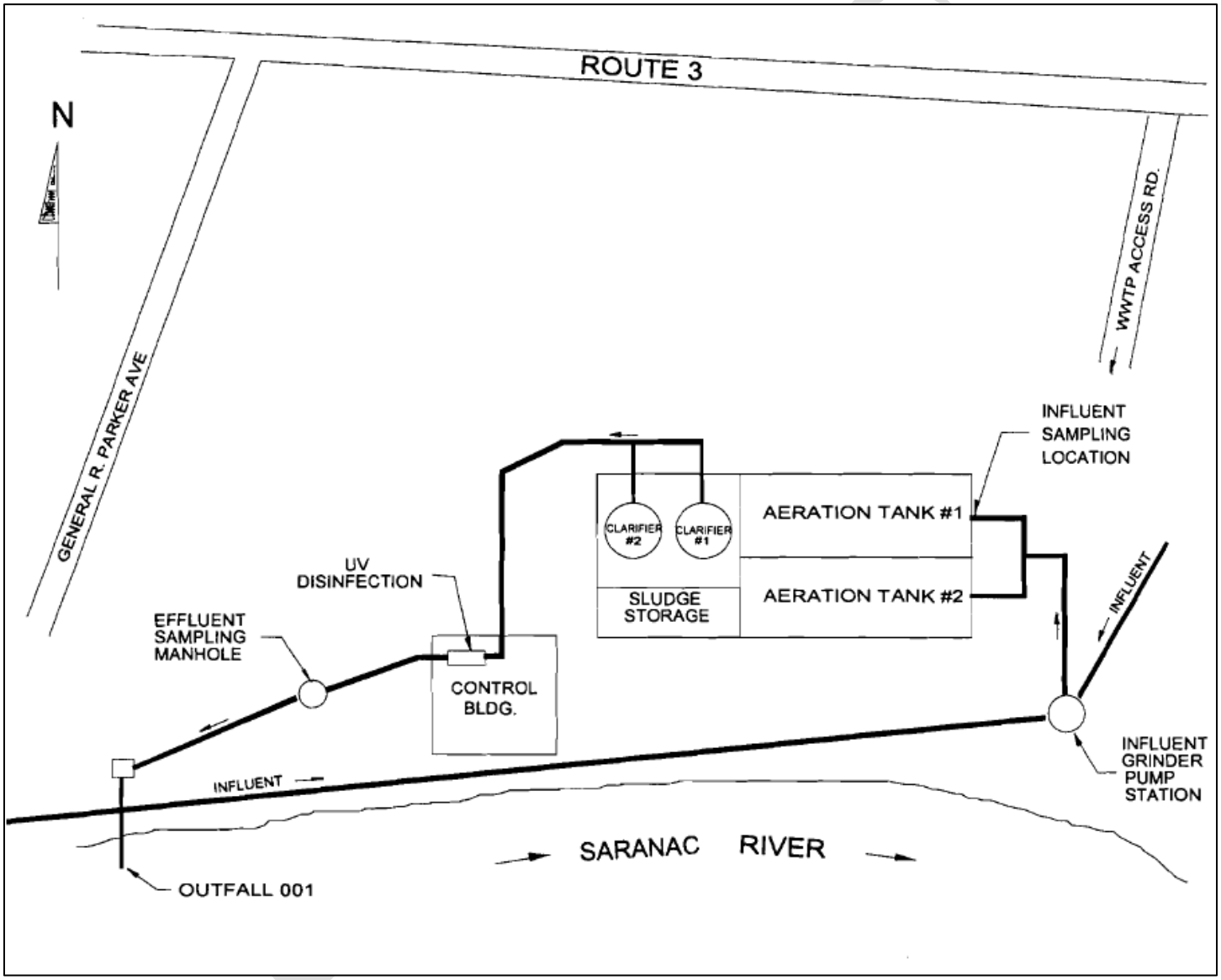
MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the locations(s) specified below:

Influent: Influent Sampling Location

Effluent: Effluent Sampling Manhole



GENERAL REQUIREMENTS

A. The regulations in 6 NYCRR Part 750 are hereby incorporated by reference and the conditions are enforceable requirements under this permit. The permittee shall comply with all requirements set forth in this permit and with all the applicable requirements of 6 NYCRR Part 750 incorporated into this permit by reference, including but not limited to the regulations in paragraphs B through I as follows:

B. General Conditions

1.	Duty to comply	6 NYCRR 750-2.1(e) & 2.4
2.	Duty to reapply	6 NYCRR 750-1.16(a)
3.	Need to halt or reduce activity not a defense	6 NYCRR 750-2.1(g)
4.	Duty to mitigate	6 NYCRR 750-2.7(f)
5.	Permit actions	6 NYCRR 750-1.1(c), 1.18, 1.20 & 2.1(h)
6.	Property rights	6 NYCRR 750-2.2(b)
7.	Duty to provide information	6 NYCRR 750-2.1(i)
8.	Inspection and entry	6 NYCRR 750-2.1(a) & 2.3

C. Operation and Maintenance

1.	Proper Operation & Maintenance	6 NYCRR 750-2.8
2.	Bypass	6 NYCRR 750-1.2(a)(17), 2.8(b) & 2.7
3.	Upset	6 NYCRR 750-1.2(a)(98) & 2.8(c)

D. Monitoring and Records

1.	Monitoring and records	6 NYCRR 750-2.5(a)(2), 2.5(a)(6), 2.5(c)(1), 2.5(c)(2), & 2.5(d)
2.	Signatory requirements	6 NYCRR 750-1.8 & 2.5(b)

E. Reporting Requirements

1.	Reporting requirements	6 NYCRR 750-2.5, 2.7 & 1.17
2.	Anticipated noncompliance	6 NYCRR 750-2.7(a)
3.	Transfers	6 NYCRR 750-1.17
4.	Monitoring reports	6 NYCRR 750-2.5(e)
5.	Compliance schedules	6 NYCRR 750-1.14(d)
6.	24-hour reporting	6 NYCRR 750-2.7(c) & (d)
7.	Other noncompliance	6 NYCRR 750-2.7(e)
8.	Other information	6 NYCRR 750-2.1(f)
9.	Additional conditions applicable to a POTW	6 NYCRR 750-2.9

F. Planned Changes

1. In accordance with 6 NYCRR 750-2.7, the permittee shall give notice to the DEC at least 45 days prior to planned physical alterations or additions to the permitted facility when:

   a. The alteration or addition to the permitted facility may meet any of the criteria for determining whether facility is a new source in 40 CFR §122.29(b); or
   b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject either to effluent limitations in the permit, or to notification requirements under 40 CFR §122.42(a)(1); or
   c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

In addition to the DEC, the permittee shall submit a copy of this notice to the United States Environmental Protection Agency at the following address: U.S. EPA Region 2, Clean Water Regulatory Branch, 290 Broadway, 24th Floor, New York, NY 10007-1866.

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GENERAL REQUIREMENTS (continued)

2. Notification Requirement for POTWs
   All POTWs shall provide adequate notice to the Department and the USEPA of the following:

   a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA if it were directly discharging those pollutants; or
   b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
   c. For the purposes of this paragraph, adequate notice shall include information on:
      i. the quality and quantity of effluent introduced into the POTW, and
      ii. any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

   POTWs shall submit a copy of this notice to the United States Environmental Protection Agency, at the following address:
   U.S. EPA Region 2, Clean Water Regulatory Branch, 290 Broadway, 24th Floor, New York, NY 10007-1866

G. Sludge Management
   The permittee shall comply with all applicable requirements of 6 NYCRR Part 360 series.

H. SPDES Permit Program Fee
   The permittee shall pay to the Department an annual SPDES permit program fee within 30 days of the date of the first invoice, unless otherwise directed by the DEC, and shall comply with all applicable requirements of ECL 72-0602 and 6 NYCRR Parts 480, 481 and 485. Note that if there is inconsistency between the fees specified in ECL 72-0602 and 6 NYCRR Part 485, the ECL 72-0602 fees govern.

I. Water Treatment Chemicals (WTCs)
   New or increased use and discharge of a WTC requires prior DEC review and authorization. At a minimum, the permittee must notify the DEC in writing of its intent to change WTC use by submitting a completed *WTC Notification Form* for each proposed WTC. The DEC will review that submittal and determine if a SPDES permit modification is necessary or whether WTC review and authorization may proceed under the current permit. The majority of WTC authorizations do not require SPDES permit modification. In any event, use and discharge of a WTC shall not proceed without prior authorization from the DEC. Examples of WTCs include biocides, coagulants, conditioners, corrosion inhibitors, defoamers, deposit control agents, flocculants, scale inhibitors, sequestrants, and settling aids.
   1. WTC use shall not exceed the rate explicitly authorized by this permit or otherwise authorized in writing by the DEC.
   2. The permittee shall maintain a logbook of all WTC use, noting for each WTC the date, time, exact location, and amount of each dosage, and, the name of the individual applying or measuring the chemical. The logbook must also document that adequate process controls are in place to ensure that excessive levels of WTCs are not used.
   3. The permittee shall submit a completed WTC Annual Report Form each year that they use and discharge WTCs. This form shall be submitted in electronic format and attached to either the December DMR or the annual monitoring report required below. The *WTC Notification Form and WTC Annual Report Form* are available from the DEC's website at: http://www.dec.ny.gov/permits/93245.html

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RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

A. The monitoring information required by this permit shall be retained for a period of at least five years from the date of the sampling for subsequent inspection by the DEC or its designated agent.

B. Discharge Monitoring Reports (DMRs): Completed DMR forms shall be submitted for each 1 month reporting period in accordance with 6 NYCRR 750-2.5(e). NYSDEC has made available the DMR Manual on the website as a reference to assist permittees with completing DMR's.

DMRs must be submitted electronically using the electronic reporting tool (NetDMR) specified by DEC. Instructions on the use of NetDMR can be found at: How To Complete And Submit Discharge Monitoring Reports (DMRs) - NYSDEC. **Hardcopy paper DMRs will only be accepted if a waiver from the electronic submittal requirements has been granted by DEC to the facility.**

Attach the monthly "Wastewater Facility Operation Report" (form 92-15-7) and any required DMR attachments electronically to the DMR or with the hardcopy submittal.

The first monitoring period begins on the effective date of this permit, and, unless otherwise required, the reports are due no later than the 28th day of the month following the end of each monitoring period.

C. Additional information required to be submitted by this permit shall be summarized and reported to the Regional Water Engineer and Bureau of Water Permits at the following addresses:

Department of Environmental Conservation
Division of Water, Bureau of Water Permits
625 Broadway, Albany, New York 12233-3505 Phone: (518) 402-8111

Department of Environmental Conservation
Regional Water Engineer, Region 5
232 Golf Course Road, Warrensburg, New York, 12885-1172 Phone: (518) 623-1200

D. Bypass and Sewage Pollutant Right to Know Reporting: In accordance with the Sewage Pollutant Right to Know Act (ECL § 17-0826-a), Publicly Owned Treatment Works (POTWs) are required to notify DEC and Department of Health within two hours of discovery of an untreated or partially treated sewage discharge and to notify the public and adjoining municipalities within four hours of discovery. Information regarding reporting and other requirements of this program may be found on the DEC's website. In addition, POTWs are required to provide a five-day incident report and supplemental information to the DEC in accordance with Part 750-2.7(d) by utilizing the Division of Water Report of Noncompliance Event form unless waived by DEC on a case-by-case basis.

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E. Schedule of Additional Submittals:

The permittee shall submit the following information to the Regional Water Engineer and to the Bureau of Water Permits, unless otherwise instructed:

SCHEDULE OF ADDITIONAL SUBMITTALS		
Outfall(s)	**Required Action**	**Due Date**
001	WATER TREATMENT CHEMICAL (WTC) ANNUAL REPORT FORM The permittee shall submit a completed WTC Annual Report Form each year that Water Treatment Chemicals are used. The form shall be attached to the December DMR.	December DMR (January 28th)
001	ANNUAL FLOW CERTIFICATION The permittee shall submit an Annual Flow Certification form each year in accordance with 750-2.9(c)(4). The form shall be attached to the February DMR or submitted through nForm.	February DMR (March 28th)
001	ANNUAL EMERGENCY RESPONSE PLAN CERTIFICATION The permittee shall submit a certification of compliance with the Emergency Response Plan requirements in accordance with 6 NYCRR 750-2.9(d) and (f). The form shall be submitted electronically using a NYSDEC approved form.	March 28th, each year
001	ANNUAL CYBERSECURITY CONTROLS CERTIFICATION The permittee shall submit a certification of compliance with the cybersecurity controls requirements in accordance with 6 NYCRR 750-2.9(e) and (f). The form shall be submitted electronically using a NYSDEC approved form.	March 28th, each year
001	MERCURY - CONDITIONAL EXCLUSION CERTIFICATION The permittee must submit a mercury conditional exclusion certification every five years in order to maintain MMP Type IV status. As part of the certification the permittee will be required to sample the effluent and measure <12 ng/L.	06/23/2031, and every 5 years thereafter
001	MERCURY MINIMIZATION PLAN The permittee must complete and maintain onsite a mercury minimization plan and subsequent annual mercury minimization status reports in accordance with the requirements of this permit.	***Maintained Onsite*** EDP + 12 months, annually thereafter

Unless noted otherwise, the above actions are one-time requirements.

F. Monitoring and analysis shall be conducted using sufficiently sensitive test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

G. More frequent monitoring of the discharge(s), monitoring point(s), or waters of the State than required by the permit, where analysis is performed by a certified laboratory or where such analysis is not required to be performed by a certified laboratory, shall be included in the calculations and recording of the data on the corresponding DMRs.

H. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

I. Unless otherwise specified, all information recorded on the DMRs shall be based upon measurements and sampling carried out during the most recently completed reporting period.

J. Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section 502 of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be directed to the New York State Department of Health, Environmental Laboratory Accreditation Program.

DRAFT

SPDES Permit Fact Sheet
Town of Plattsburgh
Cadyville Wastewater Treatment Plant
NY0255751

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Summary of Permit Changes

A State Pollutant Discharge Elimination System (SPDES) EBPS permit renewal has been finalized for the Cadyville Wastewater Treatment Plant. The changes to the permit are summarized below:

- Updated permit format, definitions, and general conditions
- Added interim effluent concentration limit of monitor for Total Phosphorus at Outfall 001, effective until EDP +54 months.
- Added effluent concentration limit of 1.0 mg/L for Total Phosphorus at Outfall 001 effective at EDP+54 months or upon Department Acceptance of the Construction Completion Certification, whichever occurs first.
- Added effluent concentration limit of 2.0mg/L for Total Residual Chlorine if chlorine is used for disinfection, elsewhere in the treatment process, or the facility otherwise has reasonable potential to discharge chlorine.
- Added Schedule of Compliance for achieving new Total Phosphorus concentration limit.
- Added Mercury Minimization Program Language
- Added a schedule of additional submittals that includes:
    - Mercury Minimization Plan;
    - Mercury Minimization program annual status report (maintained on site)
    - Mercury Minimization – Conditional Exclusion Certification
    - Annual Flow Certification
    - Annual Emergency Response Plan Certification
    - Annual Cyber Security Controls Certification
- Removed influent sampling requirement for pH, temperature, and settleable solids.

This fact sheet summarizes the information used to determine the effluent limitations (limits) and other conditions contained in the permit. General background information including the regulatory basis for the effluent limitations and other conditions are in the Appendix linked throughout this fact sheet.

Administrative History

EDP — The last full technical review was performed, and the SPDES permit became effective with a new five-year term and expiration date of 3/31/2014. The 2009 permit, along with all subsequent modifications, has formed the basis of this permit.

The permit was administratively renewed in 2014, 2019 and again in 2024. The current permit administrative renewal is effective until 3/31/2029.

1/14/2022 — Permit was modified to include daily sampling (7 days per week rather than 5 days per week).

3/31/2026 — New York State Department of Environmental Conservation (DEC) issued a Request for Information (RFI) to modify and renew the SPDES permit due to the facility's EBPS score[1]. At the time of the RFI, the facility had an EBPS score of 99 and ranking of 23.

6/26/2026 — The Town of Plattsburgh submitted a NY-2A permit application.

[1] Pursuant to 6 NYCRR 750-1.18 and NYS Environmental Benefit Permit Strategy (EBPS)

The Notice of Complete Application, published in the Environmental Notice Bulletin and newspapers, contains information on the public notice process.

Facility Information

This facility is a publicly owned treatment works that receives flow from domestic users, with effluent consisting of treated sanitary wastewater. The collection system consists of separate sewers. The facility does not have any significant industrial users (SIUs).

The current 0.006 MGD treatment plant consists of:

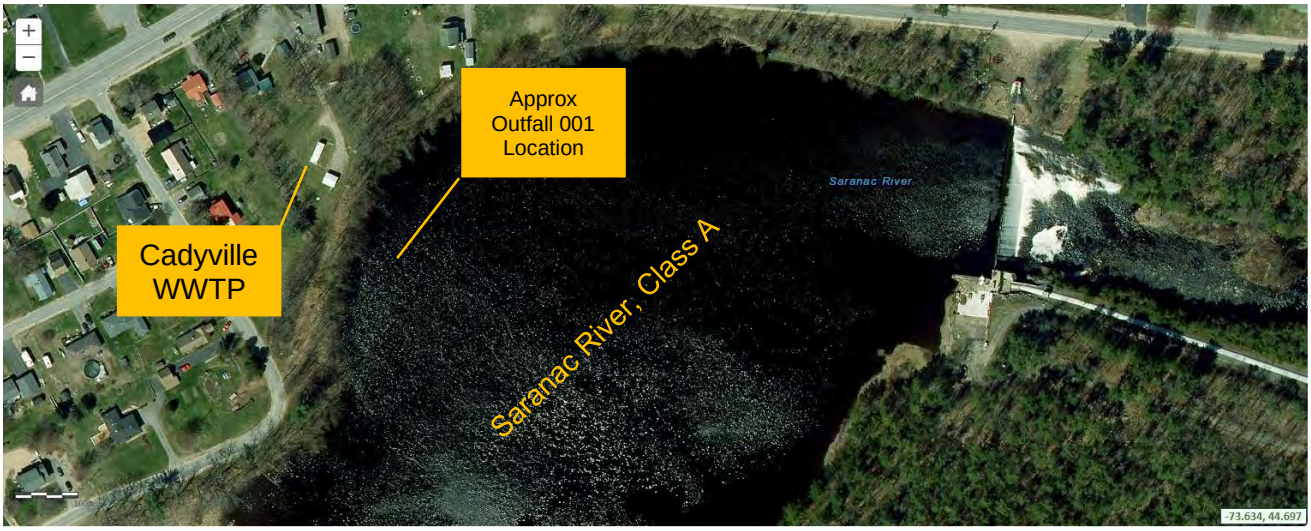
- Influent Grinder Pump Station
- Activate Sludge (Aeration Tanks)
- Secondary Clarifiers
- UV Disinfection

Sludge is aerated in a sludge storage tank, brought to Champlain Park Drying Beds, then to Franklin County Landfill for disposal.

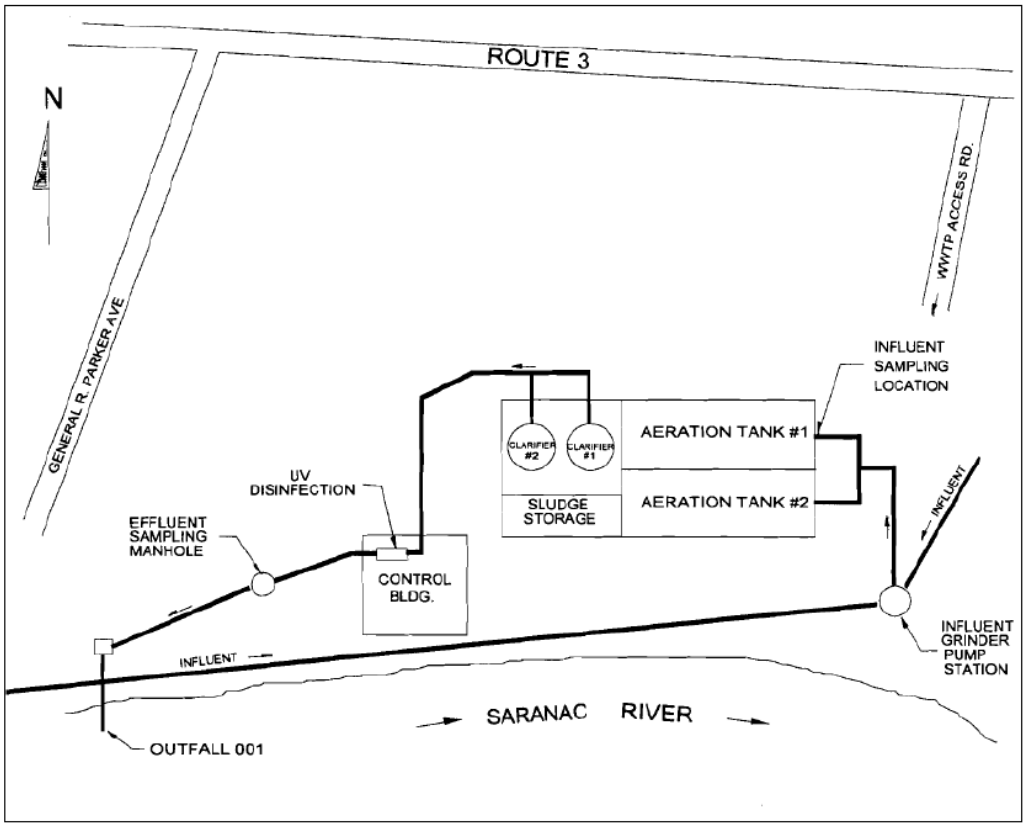
The primary outfall (Outfall 001) extends 50 ft into the Saranac River and consists of a 6" pipe that is full submerged.

The facility does not have any planned improvements.

Site Overview



Aerial Image of Facility



Schematic of Treatment Plant

Photo of Outfall submerged in river.

Enforcement History

Compliance and enforcement information can be found on the EPA's Enforcement and Compliance History Online (ECHO) website.

Existing Effluent Quality

The Pollutant Summary Table presents the existing effluent quality and effluent limitations. The existing effluent quality was determined from Discharge Monitoring Reports and the application submitted by the permittee for the period 1/1/2022 to 6/30/2026.

Interstate Water Pollution Control Agencies

Outfall(s) 001 is located within the New England Interstate Water Pollution Control Commission (NEIWPCC) compact area which places additional requirements in the SPDES permit. Appendix Link

Receiving Water Information

The facility discharges via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	4952	Treated Sanitary Sewage	Saranac River, Class A

Impaired Waterbody Information

The Saranac River segment 1003-0001 is listed on the 2020/2022 New York State Section 303(d) List of Impaired/Total Maximum Daily Load (TMDL) waters. This segment of the Saranac River is unassessed due to lack of data. However, this waterbody segment is located within the Lake Champlain Watershed and is subject to the applicable requirements of the Lake Champlain Phosphorus TMDL, as discussed below.

Lake Champlain TMDL Watershed Information

On 9/25/2002, a TMDL was approved for the Lake Champlain watershed to address phosphorus. As part of the TMDL, the discharges from the following outfalls are subject to the listed wasteload allocations (WLA) for the following parameters:

Outfall No.	Parameter	Wasteload Allocation
001	Total Phosphorus as P	0.25 lb/d

The Town of Plattsburgh is required to sample and report Total Phosphorus as P. The Total Phosphorus 12-month rolling average is defined as the sum of the current month's monthly average in lbs/day added to the monthly average in lbs/day from the 11 previous months divided by 12. See the Pollutant Summary Table for a discussion on the derivation of Total Phosphorus effluent limits.

Critical Receiving Water Data

Reach Description

The topography of Saranac River is moderately steep and provides good aeration to oxidize organic matter.

There are some small wastewater treatment facilities upstream of the Cadyville discharge which will not impact the current effluent limits of this SPDES permit.

There is one RIBS station (10-SARA-21.8) upstream of the Cadyville WWTP for which pH data is available. USGS gage station (04273000) is also located upstream of the discharge which was used for estimating low flow statistics. The classification of the stream upstream and downstream of the point-of-discharge is “C”.

Hydrology

The low flows statistics for the Saranac River were calculated using mean daily flow data for USGS gage station 04273000 (Saranac River at Saranac). The gage is located 8.4 miles upstream of the discharge. The 7Q10 flow and drainage area at the gauge were found from the USGS/NYSDEC Bulletin 74, 1979. The 1Q10 and 30Q10 flows were estimated as half the 7Q10 and 1.2 x 7Q10, respectively. The low flows at the point-of-discharge were estimated from a drainage basin ratio analysis and are shown below.

Gage Name: Saranac River at Saranac
Gage ID: 04273000
Drainage Area at Gage (mi^2): 521
Drainage Area at Facility (mi^2): 573
7Q10 Flow at Gage (CFS): 148 Source: Bulletin 74

Calculated 7Q10 Flow at Facility (CFS): 162.8
Estimated 1Q10 (CFS): 81.4
Estimated 30Q10 (CFS): 195.3

Water Quality Model

A one reach water quality model (WQM) was developed for simulating dissolved oxygen response for existing effluent limits. The WQM indicated that existing effluent limits (secondary treatment standards) are acceptable.

Mixing/Dispersion and Dilution Analysis

Based upon the available information (See photos above), the outfall pipe is submerged due to backwater from a dam downstream of the discharge. SPDES application information indicates that there is no increase in wastewater flow and any improvement to the existing treatment facility is not planned. Therefore, mixing/dispersion and dilution analysis will not be performed. A rapid and complete mixed assumption will be employed for calculating acute, chronic and HEW-based dilutions. However, the dilution will be capped to maximum values of 50:1 and 100:1, for acute, chronic and HEW conditions, respectively. This is consistent with TOGS 1.3.1 for large rivers.

Dilution Ratio = (Facility Flow + Low Flow) / Facility Flow

Outfall No.	Acute Dilution Ratio A(A)	Chronic Dilution Ratio A(C)	Human, Aesthetic, Wildlife Dilution Ratio (HEW)	Basis
001	50:1	100:1	100:1	TOGS 1.3.1

Critical receiving water data are listed in the Pollutant Summary Table at the end of this fact sheet. Appendix Link

Permit Requirements

The technology based effluent limitations (TBELs), water quality-based effluent limitations (WQBELs), Existing Effluent Quality and a discussion of the selected effluent limitation for each pollutant present in the discharge are provided in the Pollutant Summary Table.

USEPA Effluent Limitation Guidelines (ELGs) Applicable to Facility

Best Practicable Control Technology Currently Available (BPT), Best Conventional Pollutant Control Technology (BCT), Best Available Technology Economically Achievable (BAT), and New Source Performance Standards (NSPS) limitations are based on Effluent Limitation Guidelines developed by USEPA for specific industries[2]. For this facility there are no promulgated effluent guidelines. Appendix Link

Whole Effluent Toxicity (WET) Testing

None of the seven criteria that are indicative of potential toxicity are applicable to this facility; therefore, WET testing has not been included in the permit. Appendix Link

Anti-backsliding

The limitations contained in the permit are at least as stringent as the previous permit limits and there are no instances of backsliding.

Appendix Link

Antidegradation

The permit contains effluent limitations which ensure that the best usages of the receiving waters will be maintained. The Notice of Complete Application published in the Environmental Notice Bulletin contains information on the State Environmental Quality Review (SEQR)[3] determination.

Discharge Notification Act Requirements

In accordance with the Discharge Notification Act (ECL 17-0815-a), the permittee is required to post a sign at each point of wastewater discharge to surface waters, unless a waiver is obtained. This requirement has been continued from the previous permit.

Additionally, the permit contains a requirement to make the DMR sampling data available to the public upon request. This requirement has been continued from the previous permit.

Schedule of Compliance

A Schedule of Compliance has been included[4] for the following items (Appendix Link):

- Submittal of approvable engineering design documents, including a basis of design report, with the details of the upgrades needed to comply with the final effluent limitations. The effluent limitation of 1.0 mg/L for Phosphorus at Outfall 001 is a new requirement and the permittee cannot immediately comply with the concentration limit.

Emerging Contaminant Monitoring

Based on the available data, no additional monitoring for perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), and 1,4-dioxane (1,4-D) is required at this time. Please see the Pollutant Summary Table below for more information.

[2] As promulgated under 40 CFR Parts 405 - 471
[3] As prescribed by 6 NYCRR Part 617
[4] Pursuant to 6 NYCRR 750-1.14

Appendix Link

Schedule of Additional Submittals

The following Permit Requirements include submittals and are included in the Schedule of Additional Submittals (Appendix Link):

- Mercury Minimization Plan;
- Mercury Minimization Program Annual Status Report
- Mercury Minimization – Conditional Exclusion Certification
- Annual Emergency Response Plan Certification
- Annual Cyber Security Controls Certification
- Emerging Contaminant Minimization Program
- Emerging Contaminant Short-term Monitoring
- WTC Annual Report
- Annual Flow Certification
- Annual Emergency Response Plan Certification
- Annual Cybersecurity Controls Certification

OUTFALL AND RECEIVING WATER SUMMARY TABLE

Outfall	Latitude	Longitude	Receiving Water Name	Water Class	Water Index No. / Priority Waterbody Listing (PWL) No.	Major / Sub Basin	Hardness (mg/L)	1Q10 (CFS)	7Q10 (CFS)	30Q10 (CFS)	Critical Effluent Flow (MGD)	Dilution Ratio		
												A(A)	A(C)	HEW
001	44° 41' 46" N	73° 37' 56" W	Saranac River	A	C-15 PWL: 1003-0001	10/03	-	81.4	162.8	195.3	0.006	50:1	100:1	100:1

POLLUTANT SUMMARY TABLE: Outfall 001

Outfall #	001	**Description of Wastewater:** Treated Sanitary Sewage													
		Type of Treatment: Activated Sludge (aeration & secondary clarification) & UV Disinfection													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[5]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
General Notes: Existing discharge data from 01/01/2022 to 06/30/2026 was obtained from Discharge Monitoring Reports provided by the permittee. All applicable water quality standards were reviewed for development of the WQBELs. The standard and WQBEL shown below represent the most stringent. The permit limits applied as part of this permit review are bolded.															
Flow Rate	GPD	Monthly Avg	6,000	3,425 Actual Average	53	**6,000**	Design Flow	No alterations that will impair the waters for their best usages.					703.2	-	**Design Flow**
	Consistent with 40 CFR Part 133.102 and TOGS 1.3.3, a monthly average flow limitation equal to the average daily design capacity of the treatment plant has been specified.														
pH	SU	Minimum	6.5	7.0 Actual Min	53	6.0	40 CFR 133.102	7.5[6]	-	6.5 – 8.5	Range	-	703.3	-	**TBEL**
		Maximum	8.5	7.9 Actual Max	53	9.0									
	Consistent with TOGS 1.3.3 for POTWs, TBELS reflect secondary treatment standards. Given the available dilution, an effluent limitation equal to the TBEL is protective of the WQS														

[5] Existing Effluent Quality: Unless otherwise stated, Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)
[6] Median ambient pH SU value calculated from Rotating Integrated Basin Studies (RIBS) program data at station 10-SARA-21.8, located at mile point (MP) - 21.8 miles, using seven (7) samples collected from 1993 - 2023.

Outfall #	001	**Description of Wastewater:** Treated Sanitary Sewage **Type of Treatment:** Activated Sludge (aeration & secondary clarification) & UV Disinfection													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data: Permit Limit	Existing Discharge Data: Existing Effluent Quality[5]	Existing Discharge Data: # of Data Points Detects / Non-Detects	TBELs: Limit	TBELs: Basis	Water Quality Data & WQBELs: Ambient Bkgd. Conc.	Water Quality Data & WQBELs: Projected Instream Conc.	Water Quality Data & WQBELs: WQ Std. or GV	Water Quality Data & WQBELs: WQ Type	Water Quality Data & WQBELs: Calc. WQBEL	Water Quality Data & WQBELs: Basis	ML	Basis for Permit Requirement
Temperature	°F	Monthly Avg	Monitor	65.48 Actual Max	53/0	**Monitor**	750-1.13 Monitor	-	The water temperature at the surface of a stream shall not be raised to more than 90°F at any point and... shall not be raised or lowered to more than 5°F over the temperature that existed before the addition				704.2	-	**Monitor**
	Consistent with 6 NYCRR 750-1.13(a), monitoring is required to determine compliance with the water quality standard. This requirement has been continued from the previous permit.														
Dissolved Oxygen (DO) Year-round	mg/L	Daily Min	5.0	5.10	53/0	-	-	-	>4 Critical Point	4.0		-	703.3	-	**TBEL**
	The WQ model showed that a WQBEL for DO is unnecessary to maintain downstream water quality.														
5-day Biochemical Oxygen Demand (BOD_5)	mg/L	Monthly Avg	30	4.47	0 /53	**30**	40 CFR 133.102	-	DO= 4.0 mg/L Surrogate Standard			-	703.3	-	**TBEL**
		7 Day Avg	45	4.47	0/53	**45**	40 CFR 133.102					-			
	lbs/d	Monthly Avg	1.5	0.15	0/53	**1.5**	-					-			
		7 Day Avg	2.3	0.15	0/53	**2.3**	-					-			
	% Rem	Minimum	85	91	0/53	**85**	40 CFR 133.102					-			
	Consistent with 40 CFR Part 133.102 and TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. See justification for Dissolved Oxygen. The downstream DO concentration was modeled using the Streeter-Phelps equations with the following inputs for Summer/Winter periods: Effluent DO = 2.0 mg/L (default value -TOGS 1.3.1D). Effluent BOD_u= 45 mg/l, (equivalent to BOD_5 = 30 mg/L - Secondary Treatment Standards), Effluent NOD = 90 mg/L (Equivalent to TBEL of 20 mg/L). The model showed that DO standard is maintained and consequently WQBELs for DO, BOD_5, and Ammonia are unnecessary and the TBELs are protective of water quality.														

Outfall #	001	**Description of Wastewater:** Treated Sanitary Sewage														
		Type of Treatment: Activated Sludge (aeration & secondary clarification) & UV Disinfection														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[5]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Total Suspended Solids (TSS)	mg/L	Monthly Avg	30	6.84	53/0	**30**	40 CFR 133.102	-	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.				703.2	-	**TBEL**
		7 Day Avg	45	6.84	53/0	**45**	40 CFR 133.102								
	lbs/d	Monthly Avg	1.5	0.24	53/0	**1.5**	-								
		7 Day Avg	2.3	0.24	53/0	**2.3**	-								
	% Rem	Minimum	85	70	53/0	**85**	40 CFR 133.102								
	Consistent with 40 CFR Part 133.102 and TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. Given the available dilution, an effluent limitation equal to the TBEL, and consistent with TOGS 1.3.3, is protective of water quality standards.														
Settleable Solids	mL/L	Daily Max	0.3	0.10	53/0	**0.3**	TOGS 1.3.3	-	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages				703.2	-	**TBEL**
	Consistent with TOGS 1.3.3, the effluent limitation is equal to the TBEL of 0.3 mL/L for POTWs providing secondary treatment without filtration. Given that adequate dilution is available the TBEL is protective of WQS.														
Nitrogen, Ammonia (as N) SUMMER 6/1 – 10/31	mg/L	Monthly Avg	-	-	-	-	-	-	-	1.24	A(C)	>20	703.5	-	**No Limitation**
	lb/d	Monthly Avg	-	-	-	-	-	-	-	-	-	-			
	The WQS for Ammonia was determined from TOGS 1.1.1 for a pH of 7.5[7] and a summer temperature of 25°C. The temperature of the receiving waterbody was an assumed value and consistent with TOGS 1.3.1E. Due to high dilution, the WQBEL is not required.														

[7] The ambient pH value was established from the 80th percentile of the effluent pH data collected over period of 1993-2023 (7 data points).

Outfall #	001	**Description of Wastewater:** Treated Sanitary Sewage													
		Type of Treatment: Activated Sludge (aeration & secondary clarification) & UV Disinfection													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[5]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Nitrogen, Ammonia (as N) WINTER 11/1 – 5/31	mg/L	Monthly Avg	-	-	-	-	-	-	-	1.24	A(C)	>20	703.5	-	**No Limitation**
	lb/d	Monthly Avg	-	-	-	-	-	-	-	-	-	-			
	The WQS for Ammonia was determined from TOGS 1.1.1 for a pH of 7.5[7] and a summer temperature of 10°C. The temperature of the receiving waterbody was an assumed value and consistent with TOGS 1.3.1E. Due to high dilution, the WQBEL is not required.														
Total Phosphorus	mg/L	Monthly Avg	Monitor	3.40	53/0	**1.0**	TOGS 1.3.6	-	None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.				703.2	-	**TMDL**
	lb/d	Monthly Avg	Monitor	0.18	53/0	**Monitor**	750-1.13 Monitor								
	lb/d	12 MRA	0.25	0.08	26/0	**0.25**	LCB TMDL								
	Consistent with the TMDL, and to maximize phosphorus removal to improve the water quality of Lake Champlain, the permit includes a total phosphorus concentration limit of 1.0 mg/L expressed as a monthly average and 12MR limitation of 0.25 lbs/d. Daily loading limits are provided in the Lake Champlain TMDL discussion in this factsheet.														
Total Mercury	ng/L	Daily Max	No Limit	2.6	3/0	**-**	-	-	-	0.7	H(FC)	35	GLCA	-	**DOW 1.3.10**
	Mercury Minimization Plan Type IV See Mercury section of this fact sheet.														
Coliform, Fecal	#/100 ml	30d Geo Mean	200	110	26/27	**200**	TOGS 1.3.3	-	The monthly geometric mean, from a minimum of five examinations, shall not exceed 200.				703.4	-	**TBEL**
		7d Geo Mean	400	110	26/27	**400**	TOGS 1.3.3	-							
	Consistent with TOGS 1.3.3, effluent disinfection is required year-round due to the class of the receiving waterbody. Fecal coliform effluent limitations equal to the TBEL have been specified.														
Total Residual Chlorine (TRC)	mg/L	Daily Max	-	-	0/0	**2.0**	TOGS 1.3.3	-	-	5	A(C)	2.5	703.5	-	**TBEL**
	Consistent with TOGS 1.3.1E, a rapid decay of residual chlorine upon discharge takes place and a five-fold reduction is assumed. The WQBEL was calculated by multiplying the WQS by the chronic dilution ratio and a decay factor of five. Due to a dilution ratio that is greater than 80:1, the calculated WQBEL is greater than the TBEL and an effluent limitation of 2.0 mg/L is appropriate. Note: Chlorine is not used for disinfection however, TRC limit has been added to the permit for use elsewhere in the treatment process.														

Outfall 001 EMERGING CONTAMINANTS

Emerging Contaminants: Outfall # 001																
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[8]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Notes: See Emerging Contaminant Monitoring section above. Effluent samples were analyzed for the 40 PFAS compounds and 1,4-Dioxane.															
Perfluoro-butanoic Acid (PFBA)	ng/L	Daily Max	-	2.64	1/0	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
Perfluoro-pentanoic Acid (PFPeA)	ng/L	Daily Max	-	10.1	1/0	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
Perfluoro-hexanoic Acid (PFHxA)	ng/L	Daily Max	-	16.5	1/0	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
Perfluoro-heptanoic Acid (PFHpA)	ng/L	Daily Max	-	1.73	1/0	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
Perfluoro-octanoic Acid (PFOA)	ng/L	Daily Max	-	4.52 Actual Max	1/0	-	-	-	-	-	No WQ Std for Class A		-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
Perfluoro-nonanoic Acid (PFNA)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
Perfluoro-decanoic Acid (PFDA)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
Perfluoro-undecanoic Acid (PFUnA)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														

[8] Existing Effluent Quality: Unless otherwise stated, Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)

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Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[8]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Perfluoro-dodecanoic Acid (PFDoA)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
Perfluoro-tridecanoic Acid (PFTriA)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
Perfluoro-tetradecanoic Acid (PFTeA)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
Perfluoro-butanesulfonic Acid (PFBS)	ng/L	Daily Max	-	4.34	1/0	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
Perfluoro-pentanesulfonic Acid (PFPeS)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
Perfluoro-hexanesulfonic Acid (PFHxS)	ng/L	Daily Max	-	0.938	1/0	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
Perfluoro-heptanesulfonic Acid (PFHpS)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
	The projected instream concentration was calculated using the maximum reported effluent concentration of 1.16 ng/L, a multiplier of 6.2, the chronic dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 to account for the number of samples. A comparison of the projected instream concentration to the guidance value indicates no reasonable potential to cause or contribute to a water quality violation. Based on available data, no additional monitoring is required at this time.														
Perfluoro-nonanesulfonic Acid (PFNS)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
Perfluoro-decanesulfonic Acid (PFDS)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
Perfluoro-dodecane-sulfonic Acid (PFDoS)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														

Emerging Contaminants: Outfall # 001

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[8]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Perfluoro-octane-sulfonamide (FOSA)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
N-methyl Perfluoro-octanesulfon-amidoacetic Acid (NMeFOSAA)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
N-ethyl Perfluoro-octanesulfon-amidoacetic Acid (NEtFOSAA)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
4:2 Fluorotelomer Sulfonic Acid (FTS)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
6:2 Fluorotelomer Sulfonic Acid (FTS)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
8:2 Fluorotelomer Sulfonic Acid (FTS)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
N-ethyl Perfluoro-octanesulfon-amide (NEtFOSA)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														

Emerging Contaminants: Outfall # 001

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[8]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
N-methyl Perfluoro-octanesulfon-amide (NMeFOSA)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
N-methyl Perfluoro-octanesulfon-amidoethanol (NMeFOSE)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
N-ethyl Perfluoro-octanesulfon-amidoethanol (NEtFOSE)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
9-Chlorohexadeca-fluoro-3-oxanonane-1-sulfonic Acid (9Cl-PF3ONS)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
Hexafluoro-propylene Oxide Dimer Acid (HFPO-DA or GenX)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic Acid (11Cl-PF3OUdS)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
4,8-Dioxa-3H-perfluorononanoic Acid (ADONA)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														

Emerging Contaminants: Outfall # 001

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[8]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
3-Perfluoropropyl Propanoic Acid (3:3 FTCA)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
2H,2H,3H,3H-Perfluoro-octanoic Acid (5:3 FTCA)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
3-Perfluoroheptyl Propanoic Acid (7:3 FTCA)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
Nonafluoro-3,6-dioxaheptanoic Acid (NFDHA)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
Perfluoro-4-methoxy-butanoic Acid (PFMBA)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
Perfluoro-3-methoxy-propanoic Acid (PFMPA)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
Perfluoro(2-ethoxyethane)sulfonic Acid (PFEESA)	ng/L	Daily Max	-	ND	0/1	-	-	-	-	-	-	-	-	-	**No Limitation**
	Based on available data, no additional monitoring is required at this time.														
1,4-Dioxane	**µg/L**	Daily Max	-	0.88	1/0	-	-	-	0.055	18000.0	A(C)	No RP	TOGS 1.1.1	-	**No Limitation**
	The projected instream concentration was calculated using the maximum reported effluent concentration of 0.88 ug/L, a multiplier of 6.2, the chronic dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, no WQBEL has been specified.														

Appendix: Regulatory and Technical Basis of Permit Authorizations

The Appendix is meant to supplement the fact sheet for multiple types of SPDES permits. Portions of this Appendix may not be applicable to this specific permit.

Regulatory References

The provisions of the permit are based largely upon 40 CFR 122 subpart C and 6 NYCRR Part 750 and include monitoring, recording, reporting, and compliance requirements, as well as general conditions applicable to all SPDES permits. Below are the most common citations for the requirements included in SPDES permits:

- Clean Water Act (CWA) 33 section USC 1251 to 1387
- Environmental Conservation Law (ECL) Articles 17 and 70
- Federal Regulations
  - 40 CFR, Chapter I, subchapters D, N, and O
- State environmental regulations
  - 6 NYCRR Part 621
  - 6 NYCRR Part 750
  - 6 NYCRR Parts 700 - 704 – Best use and other requirements applicable to water classes
  - 6 NYCRR Parts 800 – 941 - Classification of individual surface waters
- NYSDEC water program policy, referred to as Technical and Operational Guidance Series (TOGS)
- USEPA Office of Water Technical Support Document for Water Quality-based Toxics Control, March 1991, Appendix E

The following is a quick guide to the references used within the fact sheet:

SPDES Permit Requirements	Regulatory Reference
Anti-backsliding	6 NYCRR 750-1.10(c) and 750-1.10(d), CWA sections 402(o), 303(d)(4), ECL 17-0809, 40 CFR 122.44(*l*)
Best Management Practices (BMPS) for CSOs	6 NYCRR 750-2.8(a)(2)
Environmental Benefits Permit Strategy (EBPS)	6 NYCRR 750-1.18, NYS ECL 17-0817(4), TOGS 1.2.2 (revised January 25,2012)
Exceptions for Type I SSO Outfalls (bypass)	6 NYCRR 750-2.8(b)(2), 40 CFR 122.41
Mercury Multiple Discharge Variance	Division of Water Program Policy 1.3.10 (DOW 1.3.10)
Mixing Zone and Critical Water Information	TOGS 1.3.1 & Amendments
PCB Minimization Program	40 CFR Part 132 Appendix F Procedure 8, 6 NYCRR 750-1.13(a) and 750-1.14(f), and TOGS 1.2.1
Pollutant Minimization Program (PMP)	6 NYCRR 750-1.13(a), 750-1.14(f), TOGS 1.2.1
Schedules of Compliance	6 NYCRR 750-1.14
Sewage Pollution Right to Know (SPRTK)	NYS ECL 17-0826-a, 6 NYCRR 750-2.7
State Administrative Procedure Act (SAPA)	State Administrative Procedure Act Section 401(2), 6 NYCRR 621.11(l)
State Environmental Quality Review (SEQR)	6 NYCRR Part 617
USEPA Effluent Limitation Guidelines (ELGs)	40 CFR Parts 405-471
USEPA National CSO Policy	33 USC Section 1342(q)
Whole Effluent Toxicity (WET) Testing	TOGS 1.3.2
General Provisions of a SPDES Permit Department Request for Additional Information	NYCRR 750-2.1(i)

Outfall and Receiving Water Information

Impaired Waters

The NYS 303(d) List of Impaired/TMDL Waters identifies waters where specific best usages are not fully supported. The state must consider the development of a Total Maximum Daily Load (TMDL) or other strategy to reduce the input of the specific pollutant(s) that restrict waterbody uses, in order to restore and protect such uses. SPDES permits must include effluent limitations necessary to implement a waste load allocation (WLA) of an EPA-approved TMDL (6 NYCRR 750-1.11(a)(5)(ii)), if applicable. In accordance with 6 NYCRR 750-1.13(a), permittees discharging to waters which are on the list but do not yet have a TMDL developed may be required to perform additional monitoring for the parameters causing the impairment. Accurate monitoring data is needed

to determine the existing capabilities of the wastewater treatment plants and to assure that WLAs are allocated equitably.

Interstate Water Pollution Control Agencies

Some POTWs may be subject to regulations of interstate basin/compact agencies including: Interstate Sanitation Commission (ISC), International Joint Commission (IJC), Delaware River Basin Commission (DRBC), Ohio River Valley Water Sanitation Commission (ORSANCO), and the Susquehanna River Basin Commission (SRBC). Generally, basin commission requirements focus principally on water quality and not treatment technology. However, interstate/compact agency regulations for the ISC, IJC, DRBC and NYC Watershed contain explicit effluent limits which must be addressed during permit drafting. 6 NYCRR 750-2.1(d) requires SPDES permits for discharges that originate within the jurisdiction of an interstate water pollution control agency, to include any applicable effluent standards or water quality standards (WQS) promulgated by that interstate agency.

Existing Effluent Quality

The existing effluent quality is determined from a statistical evaluation of effluent data in accordance with TOGS 1.2.1 and the USEPA Office of Water, Technical Support Document for Water Quality-based Toxics Control, March 1991, Appendix E (TSD). The existing effluent quality is equal to the 95th (monthly average) and 99th (daily maximum) percentiles of the lognormal distribution of existing effluent data. When there are greater than three non-detects, a delta-lognormal distribution is assumed, and delta-lognormal calculations are used to determine the monthly average and daily maximum pollutant concentrations. Statistical calculations are not performed for parameters where there are less than ten data points. If additional data is needed, a monitoring requirement may be specified either through routine monitoring or a short-term high intensity monitoring program. The Pollutant Summary Table identifies the number of sample data points available.

Permit Requirements

Basis for Effluent Limitations

Sections 101, 301, 304, 308, 401, 402, and 405 of the CWA and Titles 5, 7, and 8 of Article 17 ECL, as well as their implementing federal and state regulations, and related guidance, provide the basis for the effluent limitations and other conditions in the permit.

When conducting a full technical review of an existing permit, the previous effluent limitations form the basis for the next permit. Existing effluent quality is evaluated against the existing effluent limitations to determine if these should be continued, revised, or deleted. Generally, existing limitations are continued unless there are changed conditions at the facility, the facility demonstrates an ability to meet more stringent limitations, or in response to updated regulatory requirements. Pollutant monitoring data is also reviewed to determine the presence of additional contaminants that should be included in the permit based on a reasonable potential analysis to cause or contribute to a water quality standards violation.

Anti-backsliding

Anti-backsliding requirements are specified in the CWA sections 402(o) and 303(d)(4), ECL 17-0809, and regulations at 40 CFR 122.44(*l*) and 6 NYCRR 750-1.10(c) and (d). Generally, the relaxation of effluent limitations in permits is prohibited unless one of the specified exceptions applies, which will be cited on a case-by-case basis in this fact sheet. Consistent with current case law[9] and USEPA interpretation[10] anti-backsliding requirements do not apply should a revision to the final effluent limitation take effect before the scheduled date of compliance for that final effluent limitation.

[9] American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)
[10] U.S. EPA, Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California; 65 Fed. Reg. 31682, 31704 (May 18, 2000); Proposed Water Quality Guidance for the Great Lakes System, 58 Fed. Reg. 20802, 20837 & 20981 (April 16, 1993)

Antidegradation Policy

New York State implements the antidegradation portion of the CWA based upon two documents: (1) Organization and Delegation Memorandum #85-40, "Water Quality Antidegradation Policy" (September 9, 1985); and, (2) TOGS 1.3.9, "Implementation of the NYSDEC Antidegradation Policy – Great Lakes Basin (Supplement to Antidegradation Policy dated September 9, 1985) (undated)." The permit for the facility contains effluent limitations which ensure that the existing best usage of the receiving waters will be maintained. To further support the antidegradation policy, SPDES applications have been reviewed in accordance with the State Environmental Quality Review Act (SEQR) as prescribed by 6 NYCRR Part 617.

Effluent Limitations

In developing a permit, the DEC determines the technology-based effluent limitations (TBELs) and then evaluates the water quality expected to result from technology controls to determine if any exceedances of water quality criteria in the receiving water might result. If there is a reasonable potential for exceedances of water quality criteria to occur, water quality-based effluent limitations (WQBELs) are developed. A WQBEL is designed to ensure that the water quality standards of receiving waters are met. In general, the CWA requires that the effluent limitations for a particular pollutant are the more stringent of either the TBEL or WQBEL.

Technology-based Effluent Limitations (TBELs)

CWA sections 301(b)(1)(B) and 304(d)(1), 40 CFR 133.102, ECL section 17-0509, and 6 NYCRR 750-1.11 require technology-based controls, known as secondary treatment. These and other requirements are summarized in TOGS 1.3.3. Where the TBEL is more stringent than the WQBEL, the TBEL is applied as a limit in accordance with TOGS 1.3.3. Equivalent secondary treatment, as defined in 40 CFR 133.105, allow for effluent limitations of the more stringent of the consistently achievable concentrations or monthly/weekly averages of 45/65 mg/L, and the minimum monthly average of at least 65% removal. Consistently achievable concentrations are defined in 40 CFR 133.101(f) as the 95th percentile value for the 30-day (monthly) average effluent quality achieved by the facility in a period of two years. The achievable 7-day (weekly) average value is equal to 1.5 times the 30-day average value calculated above. Equivalent secondary treatment applies to those facilities where the principal treatment process is either a trickling filter or a waste stabilization pond; the treatment works provides significant biological treatment of municipal wastewater; and, the effluent concentrations consistently achievable through proper operation and maintenance of the facility cannot meet traditional secondary treatment requirements. There are no federal technology-based standards for toxic pollutants from POTWs. A statistical analysis of existing effluent data, as described in TOGS 1.2.1, may be used to establish other performance-based TBELs.

Water Quality-Based Effluent Limitations (WQBELs)

In addition to the TBELs, permits must include additional or more stringent effluent limitations and conditions, including those necessary to protect water quality. CWA sections 101 and 301(b)(1)(C), 40 CFR 122.44(d)(1), and 6 NYCRR 750-1.11 require that permits include limitations for all pollutants or parameters which are or may be discharged at a level which may cause or contribute to an exceedance of any State water quality standard adopted pursuant to NYS ECL 17-0301. Additionally, 6 NYCRR 701.1 prohibits the discharge of pollutants that will cause impairment of the best usages of the receiving water as specified by the water classifications at the location of discharge and at other locations that may be affected by such discharge. Water quality standards can be found under 6 NYCRR Parts 700-704. The limitations must be stringent enough to ensure that water quality standards are met at the point of discharge and in downstream waters and must be consistent with any applicable WLA which may be in effect through a TMDL for the receiving water. These and other requirements are summarized in TOGS 1.1.1, 1.3.1, 1.3.2, 1.3.5 and 1.3.6. The DEC considers a mixing zone analysis, critical flows, and reasonable potential analysis when developing a WQBEL.

Mixing Zone Analyses

In accordance with TOGS 1.3.1., the DEC may perform additional analysis of the mixing condition between the effluent and the receiving waterbody. Mixing zone analyses using plume dispersion modeling are conducted in accordance with the following:

"EPA Technical Support Document for Water Quality-Based Toxics Control" (March 1991); EPA Region VIII's "Mixing Zones and Dilution Policy" (December 1994); NYSDEC TOGS 1.3.1, "Total Maximum Daily Loads and Water Quality-Based Effluent Limitations" (July 1996); "CORMIX v11.0" (2019).

Critical Flows

In accordance with TOGS 1.2.1 and 1.3.1, WQBELs are developed using dilution ratios that relate the critical low flow condition of the receiving waterbody to the critical effluent flow. The critical low flow condition used in the dilution ratio will be different depending on whether the limitations are for aquatic or human health protection. For chronic aquatic protection, the critical low flow condition of the waterbody is typically represented by the 7Q10 flow and is calculated as the lowest average flow over a 7-day consecutive period within 10 years. For acute aquatic protection, the critical low flow condition is typically represented by the 1Q10 and is calculated as the lowest 1-day flow within 10 years. However, NYSDEC considers using 50% of the 7Q10 to be equivalent to the 1Q10 flow. For the protection of human health, the critical low flow condition is typically represented by the 30Q10 flow and is calculated as the lowest average flow over a 30-day consecutive period within 10 years. However, NYSDEC considers using 1.2 x 7Q10 to be equivalent to the 30Q10. The 7Q10 or 30Q10 flow is used with the critical effluent flow to calculate the dilution ratio. The critical effluent flow can be the maximum daily flow reported on the permit application, the maximum of the monthly average flows from discharge monitoring reports for the past three years, or the facility design flow. When more than one applicable standard exists for aquatic or human health protection for a specific pollutant, a reasonable potential analysis is conducted for each applicable standard and corresponding critical flow to ensure effluent limitations are sufficiently stringent to ensure all applicable water quality standards are met as required by 40 CFR 122.44(d)(1)(i). For brevity, the pollutant summary table reports the results of the most conservative scenario.

Reasonable Potential Analysis (RPA)

The Reasonable Potential Analysis (RPA) is a statistical estimation process, outlined in the 1991 USEPA Technical Support Document for Water Quality-based Toxics Control (TSD), Appendix E. This process uses existing effluent quality data and statistical variation methodology to project the maximum amounts of pollutants that could be discharged by the facility. This projected instream concentration (PIC) is calculated using the appropriate ratio and compared to the water quality standard (WQS). When the RPA process determines the WQS may be exceeded, a WQBEL is required. The procedure for developing WQBELs includes the following steps:

1) identify the pollutants present in the discharge(s) based upon existing data, sampling data collected by the permittee as part of the permit application or a short-term high intensity monitoring program, or data gathered by the DEC;

2) identify water quality criteria applicable to these pollutants;

3) determine if WQBELs are necessary (i.e. reasonable potential analysis (RPA)). The RPA will utilize the procedure outlined in Chapter 3.3.2 of EPA's Technical Support Document (TSD). As outlined in the TSD, for parameters with limited effluent data the RPA may include multipliers to account for effluent variability; and,

4) calculate WQBELs (if necessary). Factors considered in calculating WQBELs include available dilution of effluent in the receiving water, receiving water chemistry, and other pollutant sources.

The DEC uses modeling tools to estimate the expected concentrations of the pollutant in the receiving water and develop WQBELs. These tools were developed in part using the methodology referenced above. If the estimated concentration of the pollutant in the receiving water is expected to exceed the ambient water quality standard or guidance value (i.e. numeric interpretation of a narrative water quality standard), then there is a reasonable potential that the discharge may cause or contribute to an exceedance of any State water quality standard adopted pursuant to

NYS ECL 17-0301. If a TMDL is in place, the facility's WLA for that pollutant is applied as the WQBEL.

For carbonaceous and nitrogenous oxygen demanding pollutants, the DEC uses a model which incorporates the Streeter-Phelps equation. The equation relates the decomposition of inorganic and organic materials along with oxygen reaeration rates to compute the downstream dissolved oxygen concentration for comparison to water quality standards.

The Division of Water has been using the TMDL approach in permit limit development for the control of toxic substances. Since the early 1980's, the loading capacity for specific pollutants has been determined for each drainage basin. Water quality-limiting segments and pollutants have been identified, TMDLs, wasteload allocations and load allocations have been developed, and permits with water quality-based effluent limits have been issued. In accordance with TOGS 1.3.1, the Division of Water implements a Toxics Reduction Strategy which is committed to the application of the TMDL process using numeric, pollutant-specific water quality standards through the Watershed Approach. The Watershed Approach accounts for the cumulative effect of multiple discharges of conservative toxic pollutants to ensure water quality standards are met in downstream segments.

Minimum Level of Detection

Pursuant to 40 CFR 122.44(i)(1)(iv) and 6 NYCRR 750-2.5(d), SPDES permits must contain monitoring requirements using sufficiently sensitive test procedures approved under 40 CFR Part 136. A method is "sufficiently sensitive" when the method's minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant parameter; or the lowest ML of the analytical methods approved under 40 CFR Part 136. The ML represents the lowest level that can be measured within specified limitations of precision and accuracy during routine laboratory operations on most effluent matrices. When establishing effluent limitations for a specific parameter (based on technology or water quality requirements), it is possible that the calculated limitation will fall below the ML established by the approved analytical method(s). In these instances, the calculated limitation is included in the permit with a compliance level set equal to the ML of the most sensitive method.

Monitoring Requirements

CWA section 308, 40 CFR 122.44(i), 6 NYCRR 750-1.13, and 750-2.5 require that monitoring be included in permits to determine compliance with effluent limitations. Additional effluent monitoring may also be required to gather data to determine if effluent limitations may be required. The permittee is responsible for conducting the monitoring and reporting results on Discharge Monitoring Reports (DMRs). The permit contains the monitoring requirements for the facility. Monitoring frequency is based on the minimum sampling necessary to adequately monitor the facility's performance and characterize the nature of the discharge of the monitored flow or pollutant. Variable effluent flows and pollutant levels may be required to be monitored at more frequent intervals than relatively constant effluent flow and pollutant levels (6 NYCRR 750-1.13). For industrial facilities, sampling frequency is based on guidance provided in TOGS 1.2.1. For municipal facilities, sampling frequency is based on guidance provided in TOGS 1.3.3.

Action Levels

As defined in 6 NYCRR 750-1.2(a)(2), when used in a SPDES permit, an Action Level means a monitoring requirement characterized by a numerical value that, when exceeded, triggers additional permittee monitoring and DEC review to determine if numerical effluent limitations should be imposed.

The application of an Action Level is provided in TOGS 1.2.1. If the Action Level is exceeded, the permittee is required to conduct confirmatory monitoring. If Action Levels are routinely or excessively exceeded, they will be reconsidered and adjusted or replaced by limits in accordance with the Environmental Benefit Permit Strategy (EBPS). An Action Level is not a limit, and an exceedance does not constitute a permit violation unless the confirmatory sampling is not performed in accordance with the permit requirements.

Other Conditions

Schedules of Compliance

Schedules of compliance are included in accordance with 40 CFR Part 132 Attachment F, Procedure 9, 40 CFR 122.47 and 6 NYCRR 750-1.14. Schedules of compliance are intended to, in the shortest reasonable time, achieve compliance with applicable effluent standards and limitations, water quality standards, and other applicable requirements. Where the time for compliance is more than nine months, the schedule of compliance must include interim requirements and dates for their achievement. If the time necessary to complete the interim milestones is more than nine months, and not readily divisible into stages for completion, progress reports must be required.

Schedule(s) of Additional Submittals

Schedules of Additional Submittals are used to summarize the deliverables required by the permit not identified in a separate Schedule of Compliance.

Pollutant Minimization Programs

Pollutant Minimization Programs are included when a pollutant is being discharged from the facility at detectable levels and the ML for the most sensitive method is greater than the calculated WQBEL. These programs typically include an on-going potential source identification, evaluation, and prioritization program to demonstrate progress towards meeting the goal of the WQBEL. Pollutant Minimization Plan requirements are based on 40 CFR Part 132 Appendix F Procedure 8, 6 NYCRR 750-1.13(a) and 750-1.14(f), and TOGS 1.2.1.