State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	**4952**	NAICS Code:	**221320**	SPDES Number:	**NY0022195**
Discharge Class (CL):	**05**			DEC Number:	**5-0944-00001/00001**
Toxic Class (TX):	**T**			Effective Date (EDP):	**EDP**
Major-Sub Drainage Basin:	**10 - 03**			Expiration Date (ExDP):	**ExDP**
Water Index Number:	**C-15**	Item No.:	**830 - 58**	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:	**Village of Dannemora**	Attention:	**Larry Carrow, Chief Operator**		
Street:	**P.O. Box 566**				
City:	**Dannemora**	State:	**NY**	Zip Code:	**12929**
Email:	**lcarrow@villageofdannemora.net**	Phone:	**(518) 492-7944**		

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL																
Name:	**Village of Dannemora Wastewater Treatment Plant**															
Address / Location:	**284 Ryan Road**											County:	**Clinton**			
City:	**Saranac**						State:	**NY**				Zip Code:	**12981**			
Facility Location:		Latitude:	**44**	°	**42**	'	**24**	" N	& Longitude:	**73**	°	**42**	'	**47**	" W	
Primary Outfall No.:	**001**	Latitude:	**44**	°	**40**	'	**34**	" N	& Longitude:	**73**	°	**42**	'	**07**	" W	
Outfall Description:	**Treated Sanitary**	Receiving Water:	**Saranac River**					Class:	**C(T)**			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 on 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)
BWP Permit Writer
RWE
RPA
EPA Region 2 (Region2_NPDES@epa.gov)
County Health

Permit Administrator:	
Address:	625 Broadway Albany, NY 12233-1750
Signature	Date

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 - 001

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
001	All Year (unless otherwise specified)	Saranac River	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
								Location		
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	
Flow	Monthly Average	1.5	MGD			Continuous	Recorder		X	
	Daily Maximum	Monitor	MGD			Continuous	Recorder		X	
pH	Daily Minimum	6.0	SU			1/day	Grab	X	X	
	Daily Maximum	9.0	SU							
Temperature	Daily Maximum	Monitor	ºF			1/day	Grab		X	
BOD_5	Monthly Average	30	mg/L	380	lbs/d	1/week	24-hr. Comp.	X	X	1
	7-Day Average	45	mg/L	560	lbs/d	1/week	24-hr. Comp.		X	
Total Suspended Solids (TSS)	Monthly Average	30	mg/L	380	lbs/d	1/week	24-hr. Comp.	X	X	1
	7-Day Average	45	mg/L	560	lbs/d	1/week	24-hr. Comp.		X	
Settleable Solids	Daily Maximum	0.3	mL/L			1/day	Grab		X	
Total Kjeldahl Nitrogen (TKN) (as N)	Daily Maximum	Monitor	mg/L			1/week	24-hr. Comp.		X	
Ammonia (as N)	Daily Maximum	Monitor	mg/L	Monitor	lbs/d	1/week	24-hr. Comp.		X	
Total Phosphorus (as P)	12 MRA			20.3	lbs/d	1/week	24-hr. Comp.		X	4
	Monthly Average	Monitor	mg/L	Monitor	lbs/d	1/week	24-hr. Comp.		X	
Mercury, Total	12 MRA	12	ng/L			1/quarter	Calculated		X	4,5
	Daily Maximum	50	ng/L			1/quarter	Grab		X	5
Biennial Pollutant Scan						1/Two Years	-		X	3

ACTION LEVEL PARAMETERS	Type	Action Level	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Phenols, Total	Daily Maximum	73	µg/L			1/quarter	Grab		X	5,6

EFFLUENT DISINFECTION Required Seasonal from May 1st - October 31st		Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Coliform, Fecal	30-Day Geometric Mean	200	No./ 100 mL			1/week	Grab		X	2
Coliform, Fecal	7-Day Geometric Mean	400	No./ 100 mL			1/week	Grab		X	2
Chlorine, Total Residual	Daily Maximum	1.5	mg/L			1/day	Grab		X	2

Outfall 001 Continued on Next Page

PERMIT LIMITS, LEVELS AND MONITORING – 001 (continued)

WHOLE EFFLUENT TOXICITY (WET) TESTING		Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
WET - Acute Invertebrate	See footnote 8			13	TUa		See FN 8		X	8
WET - Acute Vertebrate	See footnote 8			13	TUa		See FN 8		X	8
WET - Chronic Invertebrate	See footnote 8			69	TUc		See FN 8		X	8
WET - Chronic Vertebrate	See footnote 8			69	TUc		See FN 8		X	8

EMERGING CONTAMINANTS OUTFALL 001		Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Perfluorobutanoic Acid (PFBA) CAS No. 375-22-4	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
Perfluoropentanoic Acid (PFPeA) CAS No. 2706-90-3	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
Perfluorohexanoic Acid (PFHxA) CAS No.307-24-4	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
Perfluoroheptanoic Acid (PFHpA) CAS No. 375-85-9	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
Perfluorooctanoic Acid (PFOA) CAS No. 335-67-1	Daily Maximum			10	ng/L	1/quarter	Grab		X	5,7
Perfluoro-nonanoic Acid (PFNA) CAS No. 375-95-1	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
Perfluoro-decanoic Acid (PFDA) CAS No. 335-76-2	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
Perfluoroundecanoic Acid (PFUnA) CAS No. 2058-94-8	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
Perfluorododecanoic Acid (PFDoA) CAS No. 307-55-1	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
Perfluorotridecanoic Acid (PFTiA) CAS No. 72629-94-8	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
Perfluorotetradecanoic Acid (PFTeA) CAS No. 376-06-7	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
Perfluorobutanesulfonic Acid (PFBS) CAS No. 375-73-5	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
Perfluoropentanesulfonic Acid (PFPeS) CAS No. 2706-91-4	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
Perfluorohexanesulfonic Acid (PFHxS) CAS No. 355-46-4	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
Perfluoroheptanesulfonic Acid (PFHpS) CAS No. 375-92-8	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
Perfluorooctanesulfonic Acid (PFOS) CAS No. 1763-23-1	Daily Maximum			10	ng/L	1/quarter	Grab		X	5,7
Perfluorononanesulfonic Acid (PFNS) CAS No. 68259-12-1	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
Perfluorodecanesulfonic Acid (PFDS) CAS No. 335-77-3	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
Perfluorododecanesulfonic Acid (PFDoS) CAS No. 79780-39-5	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
Perfluorooctanesulfonamide (FOSA) CAS No. 754-91-6	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA) CAS No. 2355-31-9	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5

EMERGING CONTAMINANTS OUTFALL 001		Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA) CAS No. 2991-50-6	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
1H,1H,2H,2H-Fluorotelomer Sulfonic Acid (4:2 FTS) CAS No. 757124-72-4	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
1H,1H,2H,2H- Fluorotelomer Sulfonic Acid (6:2 FTS) CAS No. 27619-97-2	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
1H,1H,2H,2H- Fluorotelomer Sulfonic Acid (8:2 FTS) CAS No. 39108-34-4	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
N-ethyl Perfluoro-octanesulfon-amide (NEtFOSA) CAS No. 4151-50-2	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA) CAS No. 31506-32-8	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE) CAS No. 24448-09-7	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE) CAS No. 1691-99-2	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS) CAS No. 756426-58-1	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA or GenX) CAS No. 13252-13-6	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS) CAS No. 763051-92-9	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA) CAS No. 919005-14-4	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
3-Perfluoropropyl Propanoic Acid (3:3FTCA) CAS No. 356-02-5	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA) CAS No. 914637-49-3	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
3-Perfluoroheptyl Propanoic Acid (7:3FTCA) CAS No. 812-70-4	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
Nonafluoro-3,6-dioxaheptanoic Acid (NFDHA) CAS No. 151772-58-6	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
Perfluoro-4-Methoxybutanoic Acid (PFMBA) CAS No. 863090-89-5	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5

EMERGING CONTAMINANTS OUTFALL 001		Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Perfluoro-3-Methoxypropanoic Acid (PFMPA) CAS No. 377-73-1	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA) CAS No. 113507-82-7	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	5

FOOTNOTES:

1. Effluent shall not exceed 33% and 15% of influent concentration values for both BOD_5 and TSS, respectively.

2. Sampling for fecal coliform and total residual chlorine shall be performed at manhole “N-13”.

3. Biennial Pollutant Scan: The permittee shall perform effluent sampling every two (2) years for all applicable pollutants identified in the NY-2A Application, Tables A - D. Sampling data shall be collected according to the guidance in the NY-2A application and maintained by the permittee. Monitoring results shall not be submitted on the DMR. Data shall be submitted with the next submission of the NY-2A form.

4. The 12-month rolling average for mercury and 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.

5. Quarterly samples shall be collected in calendar quarters (Q1 – January 1st to March 31st; Q2 – April 1st to June 30th; Q3 – July 1st to September 30th; Q4 – October 1st to December 31st).

6. Total Phenols Action Level: If the action level is exceeded, the additional monitoring requirement is triggered, and the permittee shall undertake a short-term, high-intensity, monitoring program for total phenols. Samples identical to those required for routine monitoring purposes shall be taken on each of at least three consecutive days and analyzed. Results shall be expressed in both mass and concentration. If levels higher than the action levels are confirmed, the permittee shall evaluate the treatment system operation and identify and employ actions to reduce concentrations present in the discharge. The permit may also be reopened by the DEC for consideration of revised action levels or effluent limits. Action level monitoring results and the effectiveness of the actions taken shall be summarized and submitted with the monthly operating report data.

7. Emerging Contaminants Action Level: Upon each exceedance of the Action Level for PFOA and/or PFOS, perform one (1) confirmatory sample within seven (7) days for the parameter(s) exceeded. If confirmed exceedance notify DEC at emergingcontaminantsdow@dec.ny.gov, and initiate minimization program and continuous reporting as outlined in the Schedule of Additional Submittals. All PFAS compound sampling shall use EPA Method 1633.

FOOTNOTES CONTINUED ON NEXT PAGE

FOOTNOTES CONTINUED

8. **Whole Effluent Toxicity (WET) Testing:**

Testing Requirements - Acute and if directed Chronic WET testing is required. Testing shall be performed in accordance with 40 CFR Part 136 and TOGS 1.3.2 unless prior written approval has been obtained from the DEC. The test species shall be Ceriodaphnia dubia (water flea - invertebrate) and Pimephales promelas (fathead minnow - vertebrate). Receiving water collected upstream from the discharge should be used for dilution. All tests conducted should be static-renewal (two 24-hr composite samples with one renewal for Acute tests and three 24-hr composite samples with two renewals for Chronic tests). The appropriate dilution series should be used to generate a definitive test endpoint, otherwise an immediate rerun of the test may be required. WET testing shall be coordinated with the monitoring of chemical and physical parameters limited by this permit so that the resulting analyses are also representative of the sample used for WET testing. The ratio of critical receiving water flow to discharge flow (i.e. dilution ratio) is **44:1** for acute, and **69:1** for chronic.

Monitoring Period - WET testing shall be performed quarterly (calendar quarters) during calendar years ending in **2** and **7**.

Reporting - Toxicity Units shall be calculated and reported on the DMR as follows: TUa = (100)/(48-hr LC50) [note that Acute data is generated by both Acute and Chronic testing] and TUc = (100)/(7-day NOEC) or (100)/(7-day IC25) when Chronic testing has been performed or TUc = (TUa) x (10) when only Acute testing has been performed and is used to predict Chronic test results, where the 48-hr LC50, 7-day NOEC and/or IC25 are all expressed in % effluent. This must be done, including the Chronic prediction from the Acute data, for both species unless otherwise directed. For Chronic results, report the most sensitive endpoint (i.e. survival, growth and/or reproduction) corresponding to the lowest 7-day NOEC or IC25 and resulting highest TUc. For Acute results, report a TUa of 0.3 if there is no statistically significant mortality in 100% effluent as compared to the control. Report a TUa of 1.0 if there is statistically significant mortality in 100% effluent as compared to the control, but insufficient mortality to generate a 48-hr LC50. Also, in the absence of a 48-hr LC50, use 1.0 TUa for the Chronic prediction from the Acute data, and report a TUc of 10.0.

The complete test report including all bench sheets, statistical analyses, reference toxicity data, daily average flow at the time of sampling and other appropriate supporting documentation, shall be submitted within 60 days following the end of each test period with your WET DMR and to the WET@dec.ny.gov email address. A summary page of the test results for the invertebrate and vertebrate species indicating TUa, 48-hr LC50 for Acute tests and/or TUc, NOEC, IC25, and most sensitive endpoints for Chronic tests, should also be included at the beginning of the test report.

WET Testing Action Level Exceedances - If an action level is exceeded then the DEC may require the permittee to conduct additional WET testing including Acute and/or Chronic tests. Additionally, the permittee may be required to perform a Toxicity Identification/Reduction Evaluation (TI/RE) in accordance with DEC guidance. Enforceable WET limits may also apply. The permittee shall be notified in writing by their Regional DEC office of additional requirements. The written notification shall include the reason(s) why such testing, TI/RE and/or limits are required.

STORMWATER POLLUTION PREVENTION REQUIREMENTS

NO EXPOSURE CERTIFICATION

The permittee submitted a Conditional Exclusion for No Exposure Form on **8/12/2024**, certifying that all industrial activities and materials are completely sheltered from exposure to rain, snow, snowmelt, and stormwater runoff except as allowed under 40 CFR 122.26(g)(2). The permittee must maintain a condition of no exposure for the exclusion to remain applicable. If conditions change resulting in the exposure of materials and activities to stormwater, the permittee must notify the Regional Water Engineer. The permittee must recertify a condition of no exposure every five years by completing the “No Exposure Certification Form” found on the DEC website.

MERCURY MINIMIZATION PROGRAM (MMP) - Type I

1. General - The permittee must develop, implement, and maintain a mercury minimization program (MMP), containing the elements set forth below, to reduce mercury effluent levels with the goal of achieving the WQBEL of 0.7 ng/L.

2. MMP Elements - The MMP must be a written document and must include any necessary drawings or maps of the facility and/or collection system. Other related documents already prepared for the facility may be used as part of the MMP and may be incorporated by reference. At a minimum, the MMP must include the following elements as described in detail below:

   a. Monitoring - Monitoring at Outfall 001, influent and other locations tributary to compliance points shall be performed using either USEPA Method 1631 or another sufficiently sensitive method, as approved under 40 CFR Part 136[1]. Monitoring of raw materials, equipment, treatment residuals, and other non-wastewater/non-stormwater substances may be performed using other methods as appropriate. Monitoring must be coordinated so that the results can be effectively compared between locations.

      Minimum required monitoring is as follows:

      i. Sewage Treatment Plant Influent and Effluent – The permittee must collect samples at the location(s) and frequency as specified in the SPDES permit limitations table.
      ii. *Key Locations* and *Potential Mercury Sources* – The permittee must sample *key locations*, chosen to identify *potential mercury sources*, at least semi-annually. Sampling of discharges from dental facilities in compliance with 6 NYCRR 374.4 is not required.
      iii. Hauled Wastes – The permittee must establish procedures for the acceptance of hauled waste to ensure the hauled waste is not a potential mercury source. Loads which may exceed 500 ng/L,[2] must receive approval from the DEC prior to acceptance.
      iv. Additional monitoring must be completed as required elsewhere in this permit (e.g., locations tributary to compliance points).

   b. Control Strategy - The control strategy must contain the following minimum elements:

      i. Pretreatment/Sewer Use Law - The permittee must review pretreatment program requirements and the Sewer Use Law (SUL) to ensure it is up-to-date and enforceable with applicable permit requirements and will support efforts to achieve a dissolved mercury concentration of 0.70 ng/L in the effluent.
      ii. Monitoring and Inventory/Inspections for Outfall 001 -
         1) Monitoring shall be performed as described in 2.a above. As mercury sources are found, the permittee must enforce its sewer use law to track down and minimize these sources.
         2) The permittee must inventory and/or inspect users of its system as necessary to support the MMP.
            a) Dental Facilities
               1. The permittee must maintain an inventory of each dental facility.
               2. The permittee must inspect each dental facility at least once every five years to verify compliance with the wastewater treatment operation, maintenance, and notification elements of 6 NYCRR 374.4. Alternatively, the permittee may develop and implement an outreach program,[3] which informs users of their responsibilities, and collect the "Amalgam Waste Compliance Report for Dental Dischargers"[4] form, as needed, to satisfy the inspection requirements. The permittee must conduct the outreach program at least once every five years and ensure the "Amalgam Waste Compliance Report for Dental Dischargers" are submitted by new users, as necessary. The outreach program could be supported by a subset of site inspections.
               3. A file shall be maintained containing documentation demonstrating compliance with 2.b.ii.2)a) above. This file shall be available for review by DEC representatives and copies shall be provided upon request.
            b) Other *potential mercury sources*

[1] Outfall monitoring must be conducted using the methods specified in Table 8 of *DOW 1.3.10.*
[2] A level of 0.2 mg/L (200,000 ng/L) or more is considered hazardous per 40 CFR Part 261.11. 500 ng/L is used here to alert the permittee that there is an unusual concentration of mercury and that it will need to be managed appropriately.
[3] For example, the outreach program could include education about sources of mercury and what to do if a mercury source is found.
[4] The form, "Amalgam Waste Compliance Report for Dental Dischargers," can be found here: https://www.dec.ny.gov/docs/water_pdf/dentalform.pdf

1. The permittee must maintain an inventory of other *potential mercury sources.*
2. The permittee must inspect other *potential mercury sources* once every five years. Alternatively, the permittee may develop and implement an outreach program which informs users of their responsibilities as *potential mercury sources.* The permittee must conduct the outreach program at least once every five years. The outreach program should be supported by a subset of site inspections.
3. A file shall be maintained containing documentation demonstrating compliance with 2.b.ii.2)b) above. This file shall be available for review by DEC representatives and copies shall be provided upon request.

iii. Systems with CSO & Type II SSO Outfalls – Permittees must prioritize *potential mercury sources* upstream of CSOs and Type II SSOs for mercury reduction activities and/or controlled-release discharge.

iv. 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.

v. Bulk Chemical Evaluation – For chemicals, used at a rate which exceeds 1,000 gallons/year or 10,000 pounds/year, the permittee must obtain a manufacturer's certificate of analysis, a chemical analysis performed by a certified laboratory, and/or a notarized affidavit which describes the substances' mercury concentration and the detection limit achieved. If possible, the permittee must only use bulk chemicals utilized in the wastewater treatment process which contain <10 ppb mercury.

c. **Status Report -** An **annual** status report must be developed and maintained on site, in accordance with the Schedule of Additional Submittals, summarizing:

i. All MMP monitoring results for Outfalls 001 for the previous reporting period;

ii. A list of known and *potential mercury sources* for Outfall 001;

1) If the permittee meets the criteria for MMP Type IV, the permittee must notify the DEC for a permittee-initiated modification;

iii. All actions undertaken, pursuant to the control strategy, during the previous reporting period;

iv. Actions planned, pursuant to the control strategy, for the upcoming reporting period; and

v. Progress towards achieving a dissolved mercury concentration of 0.70 ng/L in the effluent (e.g., summarizing reductions in effluent concentrations as a result of the control strategy implementation and/or installation/modification of a treatment system).

The permittee must maintain a file with all MMP documentation. The file must be available for review by Department representatives and copies must be provided upon request in accordance with 6 NYCRR 750-2.1(i) and 750-2.5(c)(4).

3. MMP Modification - The MMP must be modified whenever:
   a. Changes at the facility, or within the collection system, increase the potential for mercury discharges;
   b. Effluent discharges exceed the current permit limitation(s); or
   c. A letter from the DEC identifies inadequacies in the MMP.

   The DEC may use information in the status reports, as applicable in accordance with 2.c of this MMP, to determine if the permit limitations and MMP Type is appropriate for the facility.

DEFINITIONS:

Key location – a location within the collection/wastewater system (e.g. including but not limited to a specific manhole/access point, tributary sewer/wastewater connection, or user discharge point) identified by the permittee as a potential mercury source. The permittee may adjust key locations based upon sampling and/or best professional judgement.

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.

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:

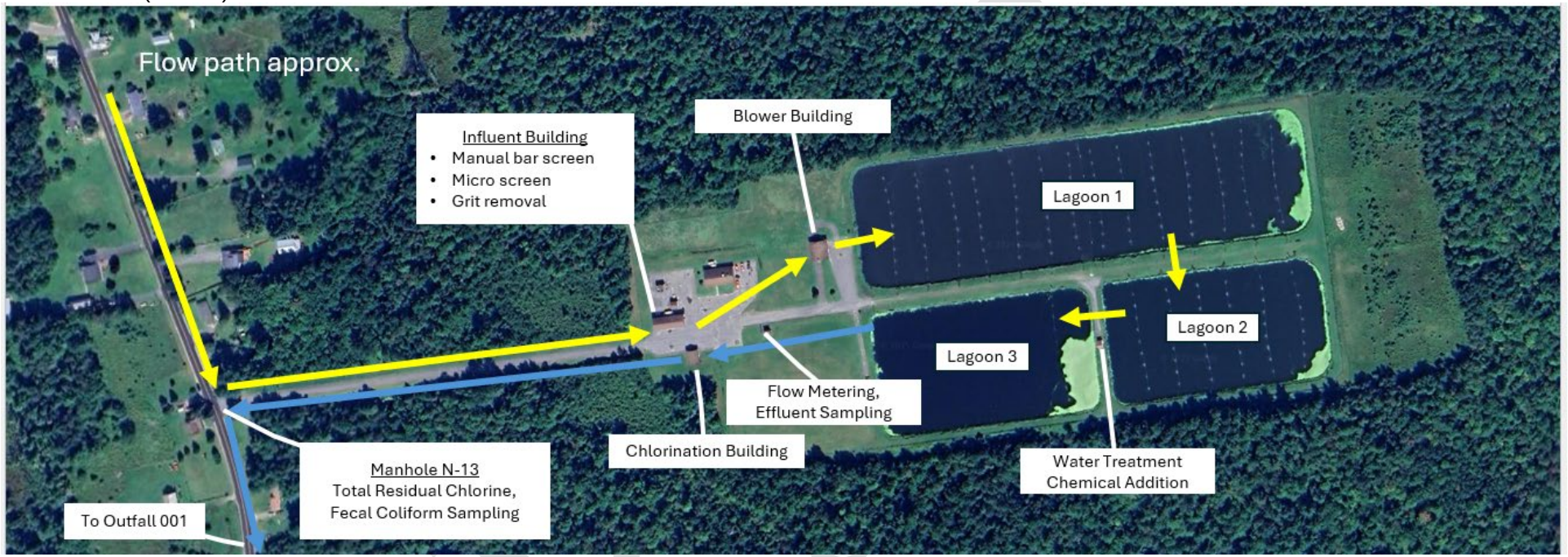
NYSDEC Division of Water Regional Phone: ( ) - ### - ####

(e) Upon request, the permittee shall make available electronic or hard copies of the sampling data to the public. 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.

MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the Influent Building (influent) and manhole N-13 (effluent).



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)(94) & 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. The permittee shall give notice to the DEC as soon as possible of 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.

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.

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 outside of the formal permit administrative process. 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

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 **one (1)** month reporting period in accordance with the DMR Manual available on DEC's website.

DMRs must be submitted electronically using the electronic reporting tool (NetDMR) specified by DEC. Instructions on the use of NetDMR can be found at https://www.dec.ny.gov/chemical/8461.html. **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.

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	EMERGING CONTAMINANT (EC) MINIMIZATION PROGRAM The permittee shall initiate track down of potential sources by utilizing the "Emerging Contaminants Investigation Checklist for POTWs" available at Emerging Contaminants In NY's Waters - NYSDEC. The permittee shall continue track down of potential sources and submit reports summarizing: a. All EC monitoring results taken to date; b. A list of known and potential EC sources; c. All actions taken to reduce EC contaminants; and Proposed next steps, including a monitoring plan to identify/confirm EC sources, and ensure continued progress towards minimization/eliminating contaminants.	Confirmation of initial Action Level exceedance 12 months after initiating track down and every 6 months thereafter until effluent falls below action levels for at least 12 months or until further notified by the Department
N/A	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**.	Annually Every January 28th
N/A	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.	Annually Every March 28th
001	BIENNIAL POLLUTANT SCAN The permittee shall implement an ongoing monitoring program and perform effluent sampling every two (2) years as specified in footnote 3of the permit limits table.	Retain and submit with next NY-2A Application
001	WHOLE EFFLUENT TOXICITY (WET) TESTING WET testing shall be performed as required in the footnote of the permit limits table. The toxicity test report including all information requested of this permit shall be attached to your WET DMRs and sent to the WET@dec.ny.gov email address.	Within 60 days following the end of each monitoring period
001	STORMWATER NO EXPOSURE CERTIFICATION Permittee must recertify every five years a condition of no exposure to stormwater in order to continue to qualify for the no exposure exclusion. The No Exposure Certification Form can be found on the DEC website.	**08/12/2029** and every 5 years thereafter
N/A	MERCURY MINIMIZATION PLAN The permittee must complete and maintain onsite an annual mercury minimization status report 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.

SPDES Permit Fact Sheet Village of Dannemora Dannemora Wastewater Treatment Plant NY0022195

Contents

Summary of Permit Changes

A State Pollutant Discharge Elimination System (SPDES) EBPS permit renewal, and full technical review has been drafted for the Dannemora Wastewater Treatment Plant (WWTP). The changes to the permit are summarized below:

General

- Updated permit format, definitions, and general conditions

Outfall 001

- Added a new Biennial Pollutant Scan requirement
- Added a new daily maximum mercury limit of 50 ng/L, 12-month rolling average limit of 12 ng/L, and associated Mercury Minimization Plan (MMP) Type I requirement
- Extended the disinfection season to start on the first of the month and end on the last day of the month (May 1st – October 31st)
- Removed influent monitoring for temperature, total Kjeldahl nitrogen, ammonia, phosphorus, settleable solids, and mercury
- Increased the monitoring frequency for ammonia and TKN
- Added an action level for total phenols of 73 ug/L
- Added action levels for Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS) and associated Emerging Contaminant (EC) Minimization Program
- Added requirement to recertify Stormwater No Exposure Certification every 5 years
- Added WET action levels of 13 TUa and 69 TUc and WET testing language

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

12/1/2009 The last full technical review was performed and the SPDES permit became effective with a new five-year term and expiration date of 11/30/2014. The 2009 permit, along with all subsequent modifications, has formed the basis of this permit.

The permit was administratively renewed in 2014 and effective until 11/30/2019, at which time the permit was allowed to stay in effect pursuant to SAPA[1].

7/1/2012 Permit was modified to include:

- Reduced (less stringent) BOD_5 percent removal requirements, from 85% to 67%
- Removed influent flow monitoring requirement
- Removed nitrates monitoring
- Removed Priority Pollutant scan requirements
- New mercury limitations and minimization program language
- Removed industrial survey requirements
- Removed influent sampling for phosphorus

1/23/2019 The permittee submitted a timely and sufficient application for permit renewal.

12/1/2019 The current permit was allowed to stay in effect pursuant to SAPA[1].

12/4/2023 DEC issued a Request for Information (RFI) to modify and renew the SPDES permit due to the facility's EBPS score[2]. At the time of the RFI, the facility had an EBPS score of 235 and ranking of 11 out of 235 Region 5 permits.

3/20/2024 The permittee requested additional time to perform sampling per the RFI.

5/8/2024 The permittee submitted a Form NY-2A Application to the Department.

7/5/2024 The Department sent a Request for Additional Information to the permittee.

10/3/2024 The permittee submitted all requested additional items.

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

Facility Information

The facility is a publicly owned treatment works that receives flow from domestic users and the Dannemora Correctional Facility with effluent consisting of treated sanitary wastewater. The facility was built in 1981 and last updated in 1999. The collection system consists of separate sewers. The facility does not have any significant industrial users (SIUs).

The current 1.5 MGD treatment plant consists of:

- Bar screens
- Aerated lagoons (3 total)
- Chemical addition for phosphorous removal
- Chlorine disinfection (seasonal)

Sludge is currently maintained in the lagoons and the permittee is working with a consultant to dredge the sludge. The facility does not have any other planned improvements.

The primary outfall, Outfall 001, is a single 18" pipe discharging to the Saranac River. The distance between the treatment facility and the outfall is approximately 2.3 miles. The port is submerged at normal river conditions and about 20 feet from the shore.

The Dannemora Correctional Facility treats its wastewater with grinders before sending to the facility.

The facility accepts wastewater from the following municipalities:

Municipality	POSS # or SPDES #	Collection System
Village of Dannemora	NY0022195	Separate
Town of Dannemora	NYS500029	Separate

[1] State Administrative Procedures Act Section 401(2) and 6 NYCRR 621.11(*l*)
[2] Pursuant to 6 NYCRR 750-1.18 and NYS Environmental Benefit Permit Strategy (EBPS)

Site Overview

Figure 1: Overview of Dannemora Wastewater Treatment Plant

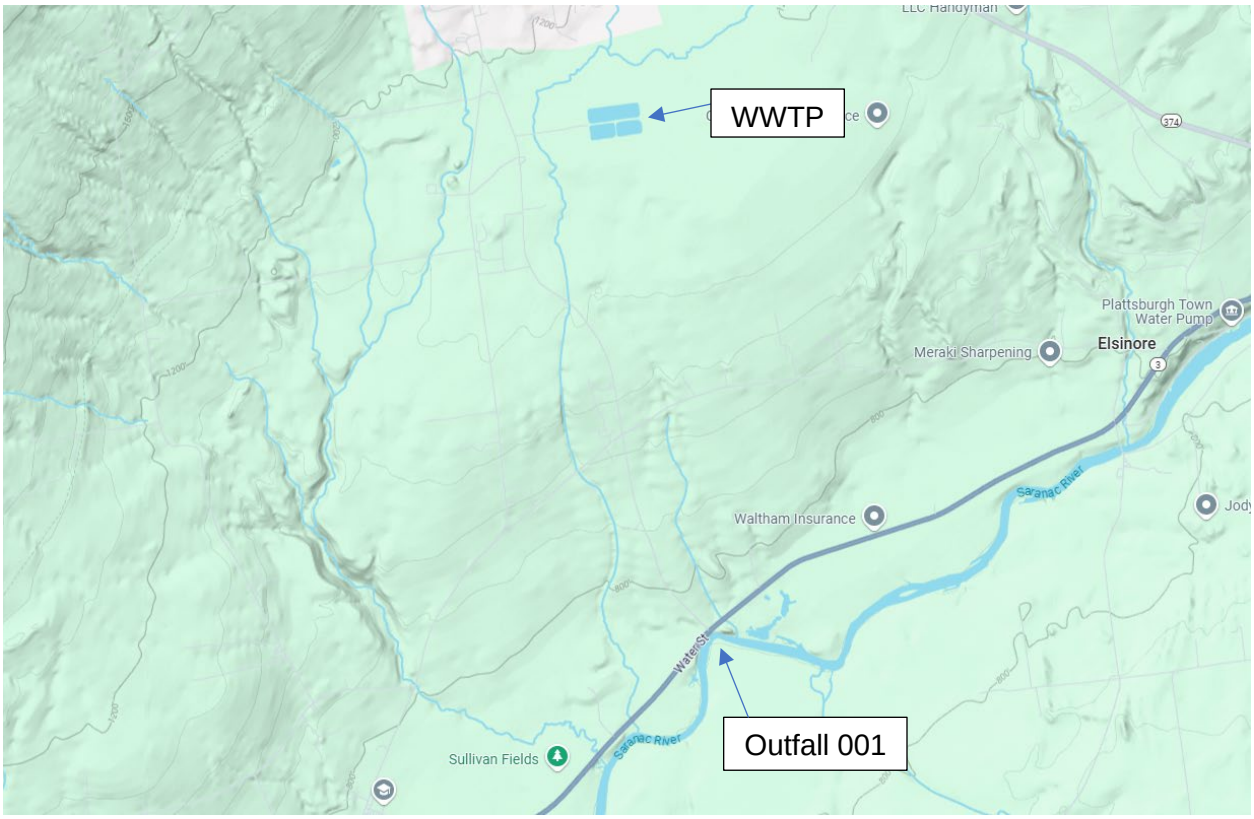


Figure 2: Map showing location of wastewater treatment plant and Outfall 001 on the Saranac River.

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 April 2019 to April 2024. 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 C(T)

Reach Description: Measured from the discharge, the model included the Saranac River (C-15, portion 3) from Outfall 001 to the Cadyville WWTP (NY0255751) located ~4.4 miles downstream. The model also included three dams (Cadyville, Mill C, and Kent Falls) located ~5.3 miles downstream of Outfall 001; and the Schuyler Falls Closed Landfill (NY0256552) located ~7.6 miles downstream of Outfall 001. The model accounted for the change in waterbody classification from Class C(T) to A ~0.5 miles downstream of the discharge and the change back to Class C(T) ~5.3 miles downstream of Outfall 001.

See the Outfall and Receiving Water Summary Table and Appendix for additional information.

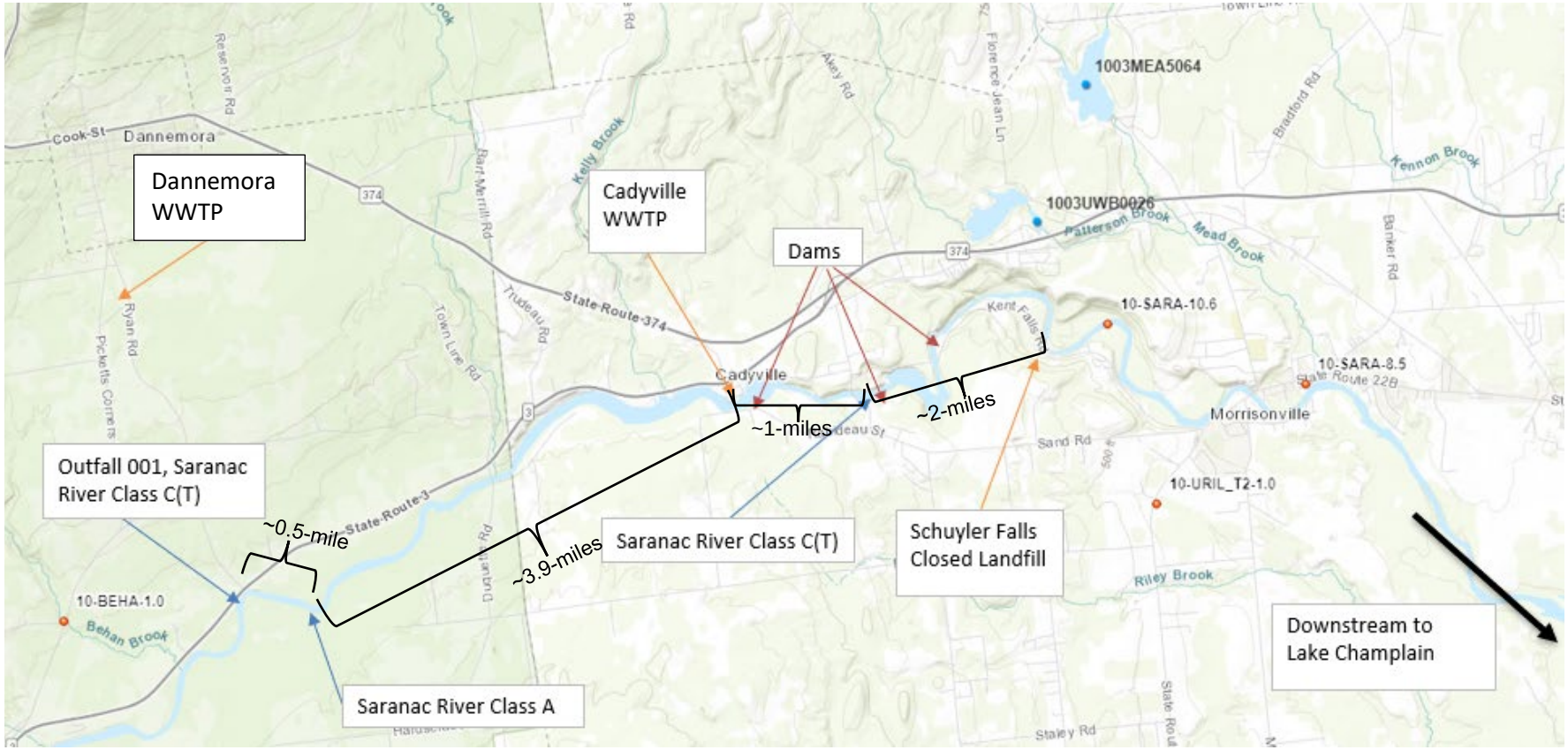


Figure 3. Downstream reach and waterbody classification.

Impaired Waterbody Information

In 2002, a TMDL was approved for the Lake Champlain watershed to address phosphorus. As part of the TMDL, the Village is required to continue to sample and report Total Phosphorus as P and will continue to meet the previously given 12 month rolling average load limitation of 20.3 lbs/d.

Outfall No.	Parameter	Wasteload Allocation
001	Total Phosphorus as P (12 MRA)	20.3 lbs/d

See the Pollutant Summary Table for a discussion on the derivation of Total Phosphorus effluent limits.

Critical Receiving Water Data

The low flow condition for the Saranac River was obtained from a drainage basin ratio analysis with USGS gage station 04273000, Saranac River at Saranac, NY located approximately 4 miles upstream of the facility. The 1Q10, 7Q10, and 30Q10 flows at the gage were found from the USGS Hydrologic Toolbox software and an analysis of data from 1931 to 1943.

DRAINAGE BASIN RATIO	1Q10	7Q10	30Q10
Gage Name	Saranac River at Saranac NY	Saranac River at Saranac NY	Saranac River at Saranac NY
Gage ID Number	04273000	04273000	04273000
Low Flow at Gage (cfs)	93.782	148.01	169.1
Drainage Area at Gage (mi^2)	521	521	521
Drainage Area at Facility (mi^2)	553	553	553
Drainage Basin Ratio (facility / gage)	1.1	1.1	1.1
Calculated Flow at Facility (cfs)	99.54	157.10	179.49

The 1Q10, 7Q10, and 30Q10 flows were used to calculate the acute, chronic, and human, aesthetic, wildlife (HEW) dilution ratios, respectively and are consistent with values used during the previous permit review.

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	44:1	69:1	78:1	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.

Whole Effluent Toxicity (WET) Testing

An evaluation of the discharge indicates the potential for toxicity because the facility is greater than or equal to 1.0 MGD. Appendix Link

The requirement for WET testing is new. No previous WET data was available to perform a

reasonable potential analysis. Consistent with TOGS 1.3.2, given the dilution available and location outside of the Great Lakes watershed basin, the permit requires acute and if directed chronic WET testing. WET testing action levels of **13 TUa** and **69 TUc** have been included in the permit for each species. The acute action level for each species represent the acute dilution ratio times a factor of 0.3. The chronic action levels represent the chronic dilution ratio. Samples will be collected at a frequency of once per calendar quarter every five (5) years.

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. Appendix Link

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 is being 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 is being continued from the previous permit.

Stormwater Pollution Prevention Requirements

The facility is a publicly owned treatment works greater than 1.0 MGD in size that requires SPDES permit coverage under 40 CFR 122.26 (b)(14)(ix).

On 8/12/2024, the permittee submitted a Conditional Exclusion for No Exposure Form, certifying that all industrial activities and materials are completely sheltered from exposure. This condition must be maintained for the exclusion to remain applicable. The Schedule of Additional Submittals also includes a due date for re-certification every five years as required by 40 CFR 122.26(g)(iii). This requirement is new.

Temperature Requirements for Municipal Discharges to Trout Streams

For municipal discharges to streams classified as trout (T) or trout spawning (TS), the Department has reviewed the dilution and maximum reported effluent temperature.

The facility does not have a reasonable potential to cause or contribute to an excursion above the thermal criteria of 6 NYCRR 704. Therefore, the permit includes “monitor only” for effluent temperature as a year-round requirement.

Mercury[4]

The multiple discharge variance (MDV) for mercury provides the framework for DEC to require mercury monitoring and mercury minimization programs (MMPs), through SPDES permitting.

The facility is an EPA Major Class 05 facility located outside of the Great Lakes drainage basin and is a possible source of mercury (dental facilities connected to the sewer system and hauled

[3] As prescribed by 6 NYCRR Part 617
[4] In accordance with DOW 1.3.10 Mercury – SPDES Permitting & Multiple Discharge Variance (MDV), December 30, 2020.

waste accepted). Therefore, the permit includes requirements for the implementation of MMP Type I. The previous permit contained annual effluent monitoring for mercury and trackdown and inspection language for possible mercury sources.

Based on six (6) data points, collected as part of the application and the facility's annual mercury sampling requirement, the facility is expected to meet the new daily maximum permit limit of 50 ng/L (with a quarterly sampling frequency) and the new 12-month rolling average permit limit of 12 ng/L (calculated monthly). The limit represents the general level currently achievable (GLCA). The data collected will be used to establish an additional 12-month rolling average effluent limit during the next permit review. Appendix Link

A mercury minimization program consisting of the following is also required:

- Additional monitoring of key locations, as defined in the MMP
- Control strategy for implementation of the MMP
- Annual status report (maintained onsite)

Biennial Pollutant Scan

Three effluent samples for applicable parameters must be submitted with an NY-2A Application[5]. The permit includes a requirement to perform biennial sampling (once every two years) of the WWTP effluent for the parameters in the NY-2A Application, Tables A – D. This requirement ensures the data is representative of effluent conditions over the permit term and will be available for the next application submittal and permit review. This requirement is new.

Emerging Contaminant Monitoring

Given the emerging nature of these contaminants; the USEPA's addition of PFOA and PFOS to the hazardous substance list under CERCLA; the USEPA's addition of PFOA and PFOS to the recommended contaminant monitoring list for state fish advisory programs; and pursuant to 6 NYCRR 750-1.14(f), the Department is imposing Action Levels, and minimization programs when there is confirmation those Action Levels are exceeded. This requirement is being imposed for the protection of the downstream receiving waterbody and to gather additional data needed to support establishment of TBELs.

Based on the available data and detections of PFOA and PFOS, Action Levels set at the Maximum Contaminant Level (MCL) of 10 ng/L are specified with monitoring required for the remaining 38 PFAS compounds pursuant to 6 NYCRR Part 750-1.13(b). Monitoring requirements are also consistent with guidance released in EPA memos dated April 28, 2022, and December 5, 2022. Please see the Pollutant Summary Table below for more information.

Schedule of Additional Submittals

A schedule of additional submittals has been included for the following (Appendix Link):

- Emerging Contaminant (EC) Minimization Program: Requires the trackdown of ECs upon initial exceedance of action level.
- Water Treatment Chemical (WTC) Annual Report Form: To be submitted every January 28th for the preceding year.
- Annual Flow Certification: Requires the submission of an Annual Flow Certification form in accordance with 750-2.9(c)(4).
- Biennial Pollutant Scan: Requires the implementation of an ongoing monitoring program and perform a Priority Pollutant (ref. 40 CFR 423, Appendix A) scan even two years.

[5] Pursuant to 40 CFR 122.21(j)(4)(vi).

- Stormwater No Exposure Certification: Permittee must recertify every five years after 8/12/2024 (date of initial receipt) a condition of no exposure to stormwater to continue to qualify for the no exposure exclusion.
- Mercury Minimization Plan: Requires the MMP to be developed and maintained on-site.

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 (MGD)	7Q10 (MGD)	30Q10 (MGD)	Critical Effluent Flow (MGD)	Dilution Ratio		
												A(A)	A(C)	HEW
001	44° 40' 30" N	73° 42' 08" W	Saranac River	C(T)*	C-15 (portion 3) (Item: 830-58) PWL: 1003-0021	10/03	33.6[6]	64	102	116	1.5	44:1	69:1	78:1

*Note: The water quality review accounted for the change in class from Class C(T) to Class A approximately 0.5 miles downstream of Outfall 001. The limits shown below are protective of Class A waterbodies and "trout" (T) standards.

POLLUTANT SUMMARY TABLE

Outfall 001

Outfall #	001	**Description of Wastewater:** Treated Sanitary Sewage														
		Type of Treatment: Grit Removal, Lagoons, Chemical Phosphorus Removal, Chlorine Disinfection														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[7]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
General Notes: Existing discharge data from 4/1/2019 to 4/30/2024 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.																
Flow Rate	MGD	Monthly Avg	1.5	0.54 Actual Avg	60/0	**1.5**	Design Flow	Narrative: No alterations that will impair the waters for their best usages.					703.2	-	Design Flow
		Daily Max	Monitor	1.5 Actual Max	60/0	-	-							-	**Monitor** 750-1.13
	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 is specified. Daily maximum flow will continue to be monitored for informational purposes and to calculate pollutant loadings.														

[6] Ambient hardness was gathered from RIBs station 10-SARA-8.5, located ~10.5 miles downstream, from one (1) sample collected in 2018.

[7] 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)

Outfall #	001	**Description of Wastewater:** Treated Sanitary Sewage **Type of Treatment:** Grit Removal, Lagoons, Chemical Phosphorus Removal, Chlorine Disinfection														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data: Permit Limit	Existing Discharge Data: Existing Effluent Quality[7]	Existing Discharge Data: # of Data Points Detects / Non-Detects	TBELs: Limit	TBELs: Basis	Water Quality Data & WQBELs: Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL	ML	Basis for Permit Requirement
pH	SU	Minimum	6.0	6.4 Actual Min	60/0	**6.0**	TOGS 1.3.3	7.5[8]	-	6.5 - 8.5	Range	No Reasonable Potential	703.3	-	TBEL
		Maximum	9.0	9.2 Actual Max	60/0	**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.														
Temperature	°F	Daily Max	Monitor	80 Actual Max	60/0	-	-	Narrative (Trout): No discharge at a temperature over 70°F (21°C) shall be permitted at any time to streams classified for trout.					704.2	-	**Monitor** 750-1.13
	Consistent with 6 NYCRR 750-1.13(a), monitoring is required and may be used to inform future permitting decisions. The effluent monitoring requirement is being continued from the previous permit, but influent monitoring is being discontinued as it is no longer needed for water quality purposes. See the Temperature Requirements for Municipal Discharges to Trout Streams section of the fact sheet for a full discussion.														
Dissolved Oxygen (DO) June 1st – Oct. 31st	mg/L	Daily Min	-	-	-	-	-	-	5.3 Critical Point	(T) 5.0 mg/L	Narrative	No Reasonable Potential	703.3	-	No Limitation
	Reach description: Measured from the discharge, the model included the Cadyville WWTP (NY0255751) located ~4.4 miles downstream; three dams (Cadyville, Mill C, and Kent Falls) located ~5.3 miles downstream; and the Schuyler Falls Closed Landfill (NY0256552) located ~7.6 miles downstream. The model accounted for the change in waterbody classification from Class C(T) to Class A ~0.5 miles downstream of the discharge and the change back to Class C(T) ~5.3 miles downstream. The downstream DO concentration was modeled using the Streeter-Phelps equations and the following assumptions: Effluent DO = 2.0 mg/L (assumed value consistent with TOGS 1.3.1D), Effluent Ammonia = 7.2 mg/L (actual summer maximum reported from DMRs), and Effluent $CBOD_5$ = 40 mg/L (from the existing BOD_5 permit limit = 45 mg/L). The model showed that a WQBEL for DO is not necessary to maintain downstream DO concentrations.														
Dissolved Oxygen (DO) Nov. 1st – May 31st	mg/L	Daily Min	-	-	-	-	-	-	8.2 Critical Point	(T) 5.0 mg/L	Narrative	No Reasonable Potential	703.3	-	No Limitation
	See above for reach description. The downstream DO concentration was modeled using the Streeter-Phelps equations and the following assumptions: Effluent DO = 2.0 mg/L (assumed value consistent with TOGS 1.3.1D), Effluent Ammonia = 15 mg/L (actual winter maximum reported from DMRs), and Effluent $CBOD_5$ = 40 mg/L (from the existing BOD_5 permit limit = 45 mg/L). The model showed that a WQBEL for DO is not necessary to maintain downstream DO concentrations.														

[8] Ambient pH calculated from RIBs station 10-SARA-21.8, located ~4 miles upstream, as 75th percentile of six (6) samples collected from 1993 to 2008.

Outfall #	001	**Description of Wastewater:** Treated Sanitary Sewage **Type of Treatment:** Grit Removal, Lagoons, Chemical Phosphorus Removal, Chlorine Disinfection													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data: Permit Limit	Existing Discharge Data: Existing Effluent Quality[7]	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 for WQBEL	ML	Basis for Permit Requirement
5-day Biochemical Oxygen Demand (BOD_5)	mg/L	Monthly Avg	30	12	60/0	**30**	40 CFR 133.102	-	See Dissolved Oxygen				-	-	TBEL
		7 Day Avg	45	42	60/0	**45**	40 CFR 133.102								
	lb/d	Monthly Avg	380	48	60/0	**380**	40 CFR 133.102								
		7 Day Avg	560	285	60/0	**560**	40 CFR 133.102								
	% Rem	Monthly Avg	67	94	60/0	**85**	40 CFR 133.102								
	Consistent with 40 CFR Part 133.102 and TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. See justification for Dissolved Oxygen.														
Total Suspended Solids (TSS)	mg/L	Monthly Avg	30	13	60/0	**30**	TOGS 1.3.3	-	Narrative: 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	67 99% Lognormal 43 Actual Max 14 Actual Avg	60/0	**45**	TOGS 1.3.3								
	lb/d	Monthly Avg	380	51	60/0	**380**	TOGS 1.3.3								
		7 Day Avg	560	420	60/0	**560**	TOGS 1.3.3								
	% Rem	Monthly Avg	85	97	60/0	**85**	TOGS 1.3.3								
	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 the WQS specified in 6 NYCRR 703.2.														
Settleable Solids	mL/L	Daily Max	0.3	0.1 Actual Max	3/57	**0.3**	TOGS 1.3.3	-	Narrative: 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 the WQS. Influent monitoring for this parameter has been discontinued as it is not required for water quality or informational purposes. An outlier of 1.8 mL/L measured in the July 2020 DMR was removed from the dataset.														

Outfall #	001	**Description of Wastewater:** Treated Sanitary Sewage **Type of Treatment:** Grit Removal, Lagoons, Chemical Phosphorus Removal, Chlorine Disinfection

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[7]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Nitrogen, Ammonia (as N) June 1st – Oct. 31st	mg/L	Daily Max	Monitor	7.2 Actual Max	25/0	-	-	0.082	0.16	0.90	H(WS)	No Reasonable Potential	703.5	-	**Monitor** 750-1.13
	lb/d	Daily Max	Monitor	49 Actual Max	25/0	-	-	-	-	-	-	-			
	Reporting for summer ammonia has been changed from (as NH_3) to (as N) for simpler data reporting, as this is consistent with the laboratory reporting units. Values can be converted using the equation: Ammonia (as N) = Ammonia (as NH_3) x 0.8224. Influent monitoring for this parameter has been discontinued as it is not necessary for water quality purposes. The WQS for summer ammonia was determined from TOGS 1.1.1 from a pH of 7.5 (80th percentile of six data points from RIBS station 10-SARA-21.8 collected in July/August) and a summer temperature of 24°C. The temperature of the receiving waterbody was an assumed value for trout waters (which are present downstream of Outfall 001 and modeled for reasonable potential) and is consistent with TOGS 1.3.1. The projected instream concentration was calculated using the maximum effluent concentration of 7.2 mg/L as N and an assumed ambient upstream concentration of 0.082 mg/L as N (TOGS 1.3.1D). A multiplier of 1.3 was applied to the maximum effluent concentration to account for the number of samples. In accordance with TOGS 1.3.1E, the HEW dilution ratio was applied to calculate the projected instream concentration. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation during the summer season. Monitoring as a daily maximum will be continued from the previous permit to assist in future permit development consistent with TOGS 1.3.3.														
Nitrogen, Ammonia (as N) Nov. 1st – May 31st	mg/L	Daily Max	Monitor	15 Actual Max	35/0	-	-	0.082	0.32	1.9	H(WS)	No Reasonable Potential	703.5	-	**Monitor** 750-1.13
	lb/d	Daily Max	Monitor	125 Actual Max	35/0	-	-	-	-	-	-	-			
	Reporting for winter ammonia has been changed from (as NH_3) to (as N) as described above. Influent monitoring for this parameter has been discontinued as it is not necessary for water quality purposes. The WQS for winter ammonia was determined from TOGS 1.1.1 from a pH of 7.5 (80th percentile of six data points from RIBS station 10-SARA-21.8) and a winter temperature of 10°C. The temperature of the receiving waterbody was an assumed value for trout waters (which are present downstream of Outfall 001 and modeled for reasonable potential) and is consistent with TOGS 1.3.1. The projected instream concentration was calculated using the maximum effluent concentration of 15 mg/L as N and an assumed ambient upstream concentration of 0.082 mg/L as N (TOGS 1.3.1D). A multiplier of 1.2 was applied to the maximum effluent concentration to account for the number of samples. In accordance with TOGS 1.3.1E, the HEW dilution ratio was applied to calculate the projected instream concentration. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation during the winter season. Monitoring as a daily maximum will be continued from the previous permit to assist in future permit development consistent with TOGS 1.3.3.														
Total Kjeldahl	mg/L	Daily Max	Monitor	51	60/0	-	-	-					703.2	-	**Monitor** 750-1.13

Outfall #	001	**Description of Wastewater:** Treated Sanitary Sewage **Type of Treatment:** Grit Removal, Lagoons, Chemical Phosphorus Removal, Chlorine Disinfection														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data: Permit Limit	Existing Discharge Data: Existing Effluent Quality[7]	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 for WQBEL	ML	Basis for Permit Requirement
Nitrogen (TKN) as N	lb/d	Daily Max	Monitor	330	60/0	-	-		Narrative: None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.						
	Monitoring for TKN will be continued from the previous permit to assist in future permit development consistent with TOGS 1.3.3. Influent monitoring for this parameter has been discontinued as it is not necessary for water quality purposes.														
Total Phosphorus as P	mg/L	Monthly Avg	Monitor	4.1 95% Lognormal 2.0 Actual Avg 3.3 Actual Max	60/0	-	-	-	Narrative: None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.			**Monitor**	TMDL / WLA	-	WQBEL
	lb/d	Monthly Avg	Monitor	12	60/0	-	-	-				**Monitor**			
	lb/d	12 MRA	20.3	11	60/0	-	-	-				**20.3**			
	Consistent with the September 2002 Lake Champlain TMDL, and to maximize phosphorus removal[9] to improve the water quality of Lake Champlain, the permit includes total phosphorus concentration monitoring and 12-month rolling average limitation of 20.3 lbs/day. See the Lake Champlain discussion for more information. Influent monitoring for this parameter has been discontinued as it is not necessary for water quality purposes.														
Mercury, Total	ng/L	12-MRA	-	-	-	-	-			0.7	-H(FC)	**12**	EEQ	-	DOW 1.3.10
		Daily Max	Monitor	11 Actual Max 4.9 Actual Avg	5/1	-	-	-	-			**50**	GLCA		DOW 1.3.10
	See Mercury discussion above. Note, influent monitoring for this parameter has been discontinued as it is not necessary for water quality purposes.														
Coliform, Fecal	#/100 mL	30d Geo Mean	200	14	25/0	**200**	TOGS 1.3.3	-	Narrative: The monthly geometric mean, from a minimum of five examinations, shall not exceed 200.				703.4	-	TBEL
		7d Geo Mean	400	174	25/0	**400**	TOGS 1.3.3	-							
	Consistent with TOGS 1.3.3, effluent disinfection is required seasonally from May 1st - October 31st, due to the class of the receiving waterbody. Fecal coliform limits equal to the TBEL are specified.														

[9] Consistent with NYCRR 750-2.8(a)(5).

Outfall #	001	**Description of Wastewater:** Treated Sanitary Sewage														
		Type of Treatment: Grit Removal, Lagoons, Chemical Phosphorus Removal, Chlorine Disinfection														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality[7]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL			
Total Residual Chlorine (TRC)	mg/L	Daily Max	**1.5**	1.8 99% Lognormal 2.2 Actual Max 0.78 Actual Avg	25/0	2.0	TOGS 1.3.3	-	0.044	0.005	A(C)	1.6	703.5 & TOGS 1.3.1	-	Anti-backsliding	
	Effluent disinfection is currently required seasonally and will remain a permit requirement. The WQBEL was calculated by multiplying the WQS of 5 µg/L by the chronic dilution ratio of 65 and a decay factor of five (ref. TOGS 1.3.1E). The calculated WQBEL is higher than the previous permit limit of 1.5 mg/L; therefore, the permit limit will remain 1.5 mg/L as a daily maximum to prevent backsliding.															
Additional Pollutants Detected in NY-2A Application																
Total Copper	µg/L	Daily Max	-	3.7 Maximum	1/0	-	-	-	0.34	3.5	A(C)	No Reasonable Potential	-	-	No Limitation	
	The projected instream concentration was calculated using the maximum measured effluent concentration of 3.7 µg/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 metals translator of 1.042 was also applied to convert between the total and dissolved form in accordance with the EPA Document 823-B-96-007. 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 is specified.															
Nitrate, as N	mg/L	Daily Max	-	4.5 Maximum	1/0	-	-	-	0.38	10	H(WS)	No Reasonable Potential	-	-	No Limitation	
	The projected instream concentration was calculated using the maximum measured effluent concentration of 4.5 mg/L, a multiplier of 6.2, the HEW 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 is specified.															
Nitrite and Nitrate, as N	mg/L	Daily Max	-	4.7 Maximum	1/0	-	-	-	0.40	10	H(WS)	No Reasonable Potential	-	-	No Limitation	
	The projected instream concentration was calculated using the maximum measured effluent concentration of 4.7 mg/L, a multiplier of 6.2, the HEW 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 is specified.															

Outfall #	001	**Description of Wastewater:** Treated Sanitary Sewage													
		Type of Treatment: Grit Removal, Lagoons, Chemical Phosphorus Removal, Chlorine Disinfection													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[7]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Total Phenols	µg/L	Monthly Avg	-	50 Maximum	1/0	**73 – AL**	BPJ	-	4.2	1.0	E	74	-	-	Action Level
	The projected instream concentration was calculated using the maximum measured effluent concentration of 50 µg/L, a multiplier of 6.2, the HEW 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 a reasonable potential to cause or contribute to a WQS violation, which is triggered by the high multiplier. Therefore, an action level will be added to gather more data for future permit development. The action level was set at the maximum concentration that would not cause or contribute to a WQS violation with five years of monitoring data (60 months).														

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[10]	# 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	-	3.5 Actual Max	1/2	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
Monitoring has been added to support establishment of future standards or TBELs.															
Perfluoro-pentanoic Acid (PFPeA)	ng/L	Daily Max	-	6.4 Actual Max	1/2	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
Monitoring has been added to support establishment of future standards or TBELs.															
Perfluoro-hexanoic Acid (PFHxA)	ng/L	Daily Max	-	9.7 Actual Max	1/2	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
Monitoring has been added to support establishment of future standards or TBELs.															
Perfluoro-heptanoic Acid (PFHpA)	ng/L	Daily Max	-	5.6 Actual Max	1/2	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
Monitoring has been added to support establishment of future standards or TBELs.															
Perfluoro-octanoic Acid (PFOA)	ng/L	Daily Max	-	13 Actual Max	1/2	**10** Action Level	BPJ MCL	-	ND	6.7	H(WS)	6.7	TOGS 1.1.1	-	Action Level
The projected instream concentration was calculated using the actual maximum measured effluent concentration of 13 ng/L, a multiplier of 6.2, the HEW 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 reasonable potential to cause or contribute to a water quality violation; however, an action level has been established at the NYSDOH Maximum Contaminant Level (MCL) for finished drinking water (10 ng/L). Discharges above the MCL would indicate the potential presence of a controllable source and the need to implement track down measures. See the Emerging Contaminant section for more information.															
Perfluoro-nonanoic Acid (PFNA)	ng/L	Daily Max	-	3.9 Actual Max	1/2	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
Monitoring has been added to support establishment of future standards or TBELs.															
Perfluoro-decanoic Acid (PFDA)	ng/L	Daily Max	-	2.0	1/2	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
Monitoring has been added to support establishment of future standards or TBELs.															
Perfluoro-undecanoic Acid (PFUnA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
Monitoring has been added to support establishment of future standards or TBELs.															

[10] 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)

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[10]	# 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	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-tridecanoic Acid (PFTiA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-tetradecanoic Acid (PFTeA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-butanesulfonic Acid (PFBS)	ng/L	Daily Max	-	1.8 Actual Max	1/2	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-pentanesulfonic Acid (PFPeS)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-hexanesulfonic Acid (PFHxS)	ng/L	Daily Max	-	2.9	1/2	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-heptanesulfonic Acid (PFHpS)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-octanesulfonic Acid (PFOS)	ng/L	Daily Max	-	12 Actual Max	1/2	**10** Action Level	BPJ MCL	-	ND	2.7	H(WS)	2.7	TOGS 1.1.1	-	Action Level
	The projected instream concentration was calculated using the maximum measured effluent concentration of 11.8 ng/L, a multiplier of 6.2, the HEW 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 reasonable potential to cause or contribute to a water quality violation; however, an action level has been established at the NYSDOH Maximum Contaminant Level (MCL) for finished drinking water (10 ng/L). Discharges above the MCL would indicate the potential presence of a controllable source and the need to implement track down measures. See the Emerging Contaminant section for more information.														
Perfluoro-nonanesulfonic Acid (PFNS)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13

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[10]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Perfluoro-decanesulfonic Acid (PFDS)	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-dodecane-sulfonic Acid (PFDoS)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-octane-sulfonamide (FOSA)	ng/L	Daily Max	-	1.5 Actual Max	1/2	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
N-methyl Perfluoro-octanesulfon-amidoacetic Acid (NMeFOSAA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
N-ethyl Perfluoro-octanesulfon-amidoacetic Acid (NEtFOSAA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
4:2 Fluorotelomer Sulfonic Acid (FTS)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
6:2 Fluorotelomer Sulfonic Acid (FTS)	ng/L	Daily Max	-	10	1/2	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
8:2 Fluorotelomer Sulfonic Acid (FTS)	ng/L	Daily Max	-	2.7	1/2	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
N-ethyl Perfluoro-	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13

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[10]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
octanesulfon-amide (NEtFOSA)	Monitoring has been added to support establishment of future standards or TBELs.														
N-methyl Perfluoro-octanesulfon-amide (NMeFOSA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
N-methyl Perfluoro-octanesulfon-amidoethanol (NMeFOSE)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
N-ethyl Perfluoro-octanesulfon-amidoethanol (NEtFOSE)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
9-Chlorohexadeca-fluoro-3-oxanonane-1-sulfonic Acid (9Cl-PF3ONS)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Hexafluoro-propylene Oxide Dimer Acid (HFPO-DA or GenX)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic Acid (11Cl-PF3OUdS)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
4,8-Dioxa-3H-perfluorononano	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13

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[10]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
ic Acid (ADONA)	Monitoring has been added to support establishment of future standards or TBELs.														
3-Perfluoropropyl Propanoic Acid (3:3 FTCA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
2H,2H,3H,3H-Perfluoro-octanoic Acid (5:3 FTCA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
3-Perfluoroheptyl Propanoic Acid (7:3 FTCA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Nonafluoro-3,6-dioxaheptanoic Acid (NFDHA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-4-methoxy-butanoic Acid (PFMBA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-3-methoxy-propanoic Acid (PFMPA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro(2-ethoxyethane)sulfonic Acid (PFEESA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	**Monitor** 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
1,4-Dioxane	µg/L	Daily Max	-	ND	0/3	-	-	-	ND	0.35	H(WS)	28	TOGS 1.1.1	-	No Limitation
	There is no calculated reasonable potential to exceed the WQBEL and, therefore, no effluent limits or monitoring are being required for 1,4-dioxane.														

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)
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[11] and USEPA interpretation[12] 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.

[11] American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)
[12] 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 Department 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) for Industrial Facilities

A TBEL requires a minimum level of treatment for industrial point sources based on currently available treatment technologies or Best Management Practices (BMPs). CWA sections 301(b) and 402, ECL sections 17-0509, 17-0809 and 17-0811, and 6 NYCRR 750-1.11 require technology-based controls on effluents. TBELs are set based upon an evaluation of New Source Performance Standards (NSPS), Best Available Technology Economically Achievable (BAT), Best Conventional Pollutant Control Technology (BCT), Best Practicable Technology Currently Available (BPT), and Best Professional Judgment (BPJ).

USEPA Effluent Limitation Guidelines (ELGs) Applicable to Facility

In many cases, BPT, BCT, BAT and NSPS limitations are based on effluent guidelines developed by USEPA for specific industries, as promulgated under 40 CFR Parts 405-471. Applicable guidelines, pollutants regulated by these guidelines, and the effluent limitation derivation for facilities subject to these guidelines is in the USEPA Effluent Limitation Guideline Calculations Table.

Best Professional Judgement (BPJ)

For substances that are not explicitly limited by regulations, the permit writer is authorized to use BPJ in developing TBELs. Consistent with section 402(a)(1) of the CWA, and NYS ECL section 17-0811, the DEC is authorized to issue a permit containing "any further limitations necessary to ensure compliance with water quality standards adopted pursuant to state law". BPJ limitations may be set on a case-by-case basis using any reasonable method that takes into consideration the criteria set forth in 40 CFR 125.3. Applicable state regulations include 6 NYCRR 750-1.11. The BPJ limitation considers the existing technology present at the facility, the statistically calculated existing effluent quality for that parameter, and any unique or site-specific factors relating to the facility. Technology limitations generally achievable for various treatment technologies are included in TOGS 1.2.1, Attachment C. These limitations may be used for the listed parameters when the technology employed at the facility is listed.

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.

Technology-based Effluent Limitations (TBELS) for Discharges to Groundwater

TBELS aim to prevent pollution by requiring a minimum level of effluent quality that is attainable using demonstrated technologies for reducing discharges of pollutants or pollution into the waters of the United States. ECL section 17-0509, and 6 NYCRR 750-1.11 require technology-based controls for POTWs discharging to surface waters, known as secondary treatment. The applicable regulations are specified in 40 CFR 133.102 and 6 NYCRR 750-1.11. These and other requirements are summarized in TOGS 1.3.3 and below:

- Secondary treatment requirements of 40 CFR Part 133 will typically not be included unless the facility discharges to a surface water prior to entering the groundwater or if, in the permit writer's judgement, limitations are necessary to prevent nuisance conditions or enhance plant operation.
- Since nitrogen is a component of all domestic wastewater, permits for facilities discharging 30,000 GPD or greater include effluent limitations for Nitrate of 20 mg/L (as N). Groundwater discharges in Nassau and Suffolk Counties are required to achieve an effluent standard for Total Nitrogen of 10 mg/L (as N).
- Disinfection will typically not be required for discharges to groundwater unless local public health concerns exist due to exposure or contact with effluent. When this occurs, disinfection requirements and effluent limitations for chlorine residual are developed in accordance with TOGS 1.3.3.

Technology-based Effluent Limitations (TBELS) for Industrial Facilities to Groundwater

TBELS aim to prevent pollution by requiring a minimum level of effluent quality that is attainable using demonstrated technologies for reducing discharges of pollutants or pollution into the waters of the United States. Requirements for discharges from industrial facilities to groundwater are summarized in TOGS 1.2.1. In accordance with TOGS 1.2.1, for facilities discharging to groundwater:

- Discharges will typically be limited to the more stringent of the groundwater effluent standards in 6 NYCRR 703.6 or the applicable treatment technology listed in TOGS 1.2.1 Attachment (C).
- Discharges from industrial facilities which contain nitrogen or nitrogen compounds include effluent limitations for Nitrate of 20 mg/L (as N). Groundwater discharges in Nassau and Suffolk Counties are required to achieve an effluent standard for Total Nitrogen of 10 mg/L (as N).
- Disinfection will typically not be required for discharges to groundwater unless local public health concerns exist due to exposure or contact with effluent.

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 Parts 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 Part 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.

Water Quality-Based Effluent Limitations (WQBELs) for Discharges to Groundwater

The procedure for developing WQBELs includes identifying the pollutants present in the discharge(s), identifying water quality criteria applicable to these pollutants, determining if WQBELs are necessary (reasonable potential), and calculating the WQBELs. For groundwater discharges, if the expected concentration of the pollutant of concern in the receiving water may exceed the ambient groundwater quality standard or guidance value, then there is reasonable potential that the discharge may cause or contribute to a violation of the water quality, and a WQBEL for the pollutant is required.

WQBELs for groundwater discharges are based on the groundwater effluent limits set forth in 6 NYCRR Part 703 (Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations) except as noted in 6 NYCRR 702.21. TOGS 1.1.1 provides a listing of groundwater effluent limitations for substances having an ambient water quality standard or guidance value. Groundwater effluent limitations are applied at the point of discharge to the groundwater distribution system.

For land treatment systems with no accessible final sampling points, such as constructed wetland treatment systems or buried sand filters, permit limitations for groundwater discharges are typically based on ambient groundwater quality standards or guidance values applied at representative down gradient monitoring well(s). Limitations at the downgradient sampling point are set at the Class GA ambient groundwater standards, rather than at the groundwater effluent limits promulgated under 6 NYCRR 703.6, as compliance is determined based upon the concentrations present in the downgradient groundwater monitoring well at the groundwater interface.

Class GA standards are established for the protection of sources of drinking water designated as Health (Water Source) or H(WS) in TOGS 1.1.1. As such, effluent limitations based on aquatic life criteria and WET testing requirements are not applicable to groundwater discharges.

Whole Effluent Toxicity (WET) Testing:

WET tests use small vertebrate and invertebrate species to measure the aggregate toxicity of an effluent. There are two different durations of toxicity tests: acute and chronic. Acute toxicity tests measure survival over a 96-hour test exposure period. Chronic toxicity tests measure reductions in survival, growth, and reproduction over a 7-day exposure. TOGS 1.3.1 includes guidance for determining when aquatic toxicity

testing should be included in SPDES permits. The authority to require toxicity testing is in 6NYCRR 702.9. TOGS 1.3.2 describes the procedures which should be followed when determining whether to include toxicity testing in a SPDES permit and how to implement a toxicity testing program. Per TOGS 1.3.2, WET testing may be required when any one of the following seven criteria are applicable:

1. There is the presence of substances in the effluent for which ambient water quality criteria do not exist.
2. There are uncertainties in the development of TMDLs, WLAs, and WQBELs, caused by inadequate ambient and/or discharge data, high natural background concentrations of pollutants, available treatment technology, and other such factors.
3. There is the presence of substances for which WQBELs are below analytical detectability.
4. There is the possibility of complex synergistic or additive effects of chemicals, typically when the number of metals or organic compounds discharged by the permittee equals or exceeds five.
5. There are observed detrimental effects on the receiving water biota.
6. Previous WET testing indicated a problem.
7. POTWs which exceed a discharge of 1 MGD. Facilities of less than 1 MGD may be required to test, e.g., POTWs <1 MGD which are managing industrial pretreatment programs.

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.

Requirements for Combined Sewer Overflows (CSOs)

Pollution from combined sewer overflows is controlled with implementation of SPDES permit conditions in accordance with the Division of Water CSO Control strategy (TOGS 1.6.3) and the USEPA CSO Control Policy issued April 11, 1994.

CWA Section 402(q) requires that each permit for a discharge from a municipal combined storm and sanitary sewer shall conform to EPA’s Combined Sewer Overflow Control Policy.[1] The CSO Control Policy identifies specific requirements for Phase I and Phase II permits. Phase I permits must include requirements for the implementation of the Nine Minimum Controls (NMCs) and development of the Long-Term CSO Control Plan (LTCP).

[1] Available at https://www.epa.gov/sites/production/files/2015-10/documents/owm0111.pdf

The 15 CSO Best Management Practices (BMPs) required by NYS under TOGS 1.6.2 are equivalent to the "Nine Minimum Control Measures" required under the USEPA National Combined Sewer Overflow policy (33 USC section 1342(q)). BMPs are technology-based requirements developed in accordance with best professional judgement. These are largely non-structural measures which are designed to maximize pollutant capture and removal from the combined sewer system and the POTW as a whole.

Phase II permits must include requirements to implement the technology-based controls including the NMCs determined on a BPJ basis, as well as requirements which ensure that the selected CSO controls are implemented, operated, and maintained as described in the long-term CSO control plan (LTCP). These requirements are critical to meeting the objectives of the Policy, including to bring all CSO discharge points into compliance with the technology-based and water quality-based requirements of the CWA, and to minimize the water quality, aquatic biota, and human health impacts from CSOs.

Additionally, the 1994 CSO Control Policy requires permits include a requirement for CSO communities who have developed an approved LTCP to reassess overflows to sensitive areas in those cases where elimination or relocation of the overflows is not physically possible and economically achievable. The reassessment should be based on consideration of new or improved techniques to eliminate or relocate overflows or changed circumstance that influence economic achievability.

Other Conditions

Mercury

The multiple discharge variance (MDV) for mercury was developed in accordance with 6 NYCRR 702.17(h) “to address widespread standard or guidance value attainment issues including the presence of a ubiquitous pollutant or naturally high levels of a pollutant in a watershed.” The first MDV was issued in October 2010, and subsequently revised and reissued in 2015; each subsequent iteration of the MDV is designed to build off the previous version, to make reasonable progress towards the water quality standard (WQS) of 0.7 ng/L dissolved mercury. The MDV is necessary because human-caused conditions or sources of mercury prevent attainment of the WQS and cannot be remedied (i.e., mercury is ubiquitous in New York waters at levels above the WQS and compliance with a water quality based effluent limitation (WQBEL) for mercury cannot be achieved with demonstrated effluent treatment technologies). The DEC has determined that the MDV is consistent with the protection of public health, safety, and welfare. During the effective period of this MDV, any increased risks to human health are mitigated by fish consumption advisories issued periodically by the NYSDOH.

All surface water SPDES permittees are eligible for authorization by the MDV provided they meet the requirements specified in DOW 1.3.10.

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.

Best Management Practices (BMP) for Industrial Facilities

BMP plans are authorized for inclusion in NPDES permits pursuant to Sections 304(e) and 402 (a)(1) of the Clean Water Act, and 6 NYCRR 750-1.14(f). The regulations pertaining to BMPs are promulgated under 40 CFR Part 125, Subpart K. These regulations specifically address surface water discharges.

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.

Mini Industrial Pretreatment Program

Pretreatment requirements are intended to protect a WWTP from receiving pollutants that cause pass through or interference to the operations of the POTW receiving such wastes. When necessary, the DEC, in accordance with TOGS 1.3.3. and through issued SPDES permits, requires WWTPs to develop and implement mini or partial pretreatment programs. These requirements are consistent with regulations in 6 NYCRR §750-2.9(b)(1), ECL 17-0811, ECL 17-0825, and 40 CFR §403.5.

As part of the mini pretreatment program, a WWTP must identify industrial users; determine whether legal authority controls (e.g. sewer use laws) are adequate; require, issue, and enforce industrial user permits; and, implement the program.