State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	**4952**	NAICS Code:	**221320**	SPDES Number:	**NY0101885**
Discharge Class (CL):	**07**			DEC Number:	**3-5520-00007/00005**
Toxic Class (TX):	**N**			Effective Date (EDP):	**TBD**
Major-Sub Drainage Basin:	**13- 02**			Expiration Date (ExDP):	**TBD**
Water Index Number:	**H-31-P44-36-2**	Item No.:	**864- 420.1**	Modification Dates (EDPM):	
Compact Area:	**-**				

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

PERMITTEE NAME AND ADDRESS					
Name:	**Town of Bedford**	Attention:	**Kevin Winn, Comm of Public Works**		
Street:	**301 Adams Street**				
City:	**Bedford Hills**	State:	**NY**	Zip Code:	**10507**
Email:	**kwinn@bedfordny.gov**	Phone:	**(914) 666 -7669**		

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL																	
Name:	**Bedford Hills Correctional Facility**																
Address / Location:	**247 Harris Road**											County:	**Westchester**				
City:	**Bedford Hills**						State:	**NY**				Zip Code:	**10507**				
Facility Location:		Latitude:	**41**	°	**14**	’	**31**	” N	& Longitude:	**73**	°	**40**	’	**37**	” W		
Primary Outfall No.:	**001**	Latitude:	**41**	°	**14**	’	**36**	” N	& Longitude:	**73**	°	**40**	’	**39**	” W		
Outfall Description:	**Treated Sanitary**	Receiving Water:	**Broad Brook**						Class:	**C**		Standard:	**C(TS)**				

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:

Permit Administrator:			
Address:			
Signature:		Date:	/ /

Contents

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.
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 department 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 Department.
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.

INTERIM PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
001	All Year unless otherwise noted	Broad Brook	EDP	On Startup (1) or on 12/31/2025 whichever comes first

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location Inf.	Location Eff.	
Flow	Monthly Average	0.50	MGD			Continuous	Recorder		X	
$CBOD_5$	Monthly Average	15	mg/l	63	lbs/d	2/month	6-hr Comp.		X	
Total Suspended Solids	Monthly Average	10	mg/l	42	lbs/d	2/month	6-hr Comp.		X	
Settleable Solids	Daily Maximum	0.1	ml/l			1/day	Grab		X	
pH	Range	6.5-8.5	SU			1/day	Grab		X	
Nitrogen, Ammonia (**as N)** (June 1 – Oct 31)	Monthly Average	monitor	mg/l			2/month	6-hr Comp.		X	(2)
Nitrogen, Ammonia (**as N**) (Nov 1 – May 31)	Monthly Average	monitor	mg/l			2/month	6-hr Comp.		X	(2)
Total Phosphorus (as P)	Monthly Average	0.2	mg/l			2/month	6-hr Comp.		X	
Dissolved Oxygen	Daily Minimum	4.0	mg/l			2/month	Grab		X	
Effluent Disinfection required: [X] All Year [ ] Seasonal from _____to _____										
Coliform, Fecal	30-Day Geometric Mean	200	No./100 mL			2/month	Grab		X	
Coliform, Fecal	7-DayGeometric Mean	400	No./100 mL			2/month	Grab		X	
Coliform, Total	Daily Maximum	750	No./100 mL			2/month	Grab		X	
Chlorine, Total Residual	Daily Maximum	0.1	mg/l			1/day	Grab		X	(3,4)
Giardia Lamblia, Cysta		See (4)	NA			NA	NA		X	(5)
Enteric Viruses		See (4)	NA			NA	NA		X	(5)
Turbidity		See (5)	NTU			Continuous	Recorder		X	(6)
ACTION LEVEL PARAMETERS	Type	Action Level	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Temperature	Daily Maximum	70	Deg F			1/day	Grab		X	(7)

FOOTNOTES continued on next page:

(1) The limits on this page shall expire upon startup of the 0.56 mgd facility. The startup date for the 0.56 mgd facility will be identified in a letter from the permittee to the offices listed on the Monitoring, Reporting and Recording page of this permit and to the Chief, Bureau of Water Permits, 625 Broadway, Albany, NY 12233-3505. Startup shall commence with DEC, EFC or Westchester County Department of Health approved reports, plans and specifications.

(2) Reporting for Ammonia has been changed from (as NH_3) to (as N) for simpler data reporting, as this is consistent with the laboratory reporting units. Final effluent limits for Nitrogen, ammonia shall be **effective as per Consent Order R3-20190715-133, Schedule of Compliance.**

(3) Monitoring is only required if chlorine is used for disinfection.

(4) Total Residual Chlorine – When chlorine is used for disinfection, a minimum residual of 0.2 mg/l shall be maintained in the chlorine contact tank prior to dichlorination.

(5) Giardia Lamblia Cysts and Enteric Viruses – The facility must be capable of achieving 99.9% removal and/or inactivation of giardia lamblia cysts and enteric viruses. The capability shall be demonstrated by maintaining the turbidity and chlorine levels specified and operating the microfiltration unit and the disinfection system on a continuous basis, in accordance with the provisions set forth in the WWTP's Operation and Maintenance Manual.

(6) Turbidity – The turbidity levels shall be maintained at less than or equal to 0.5 nephelometric turbidity units (NTU) in 95% of the measurements taken each month and an instantaneous maximum of 5.0 NTU shall not be exceeded.

(7) Temperature Action Level –

Sampling Requirements - If the discharge temperature exceeds the Action Level of 70 degrees Fahrenheit the permittee shall, within one week, undertake the following one day monitoring program:

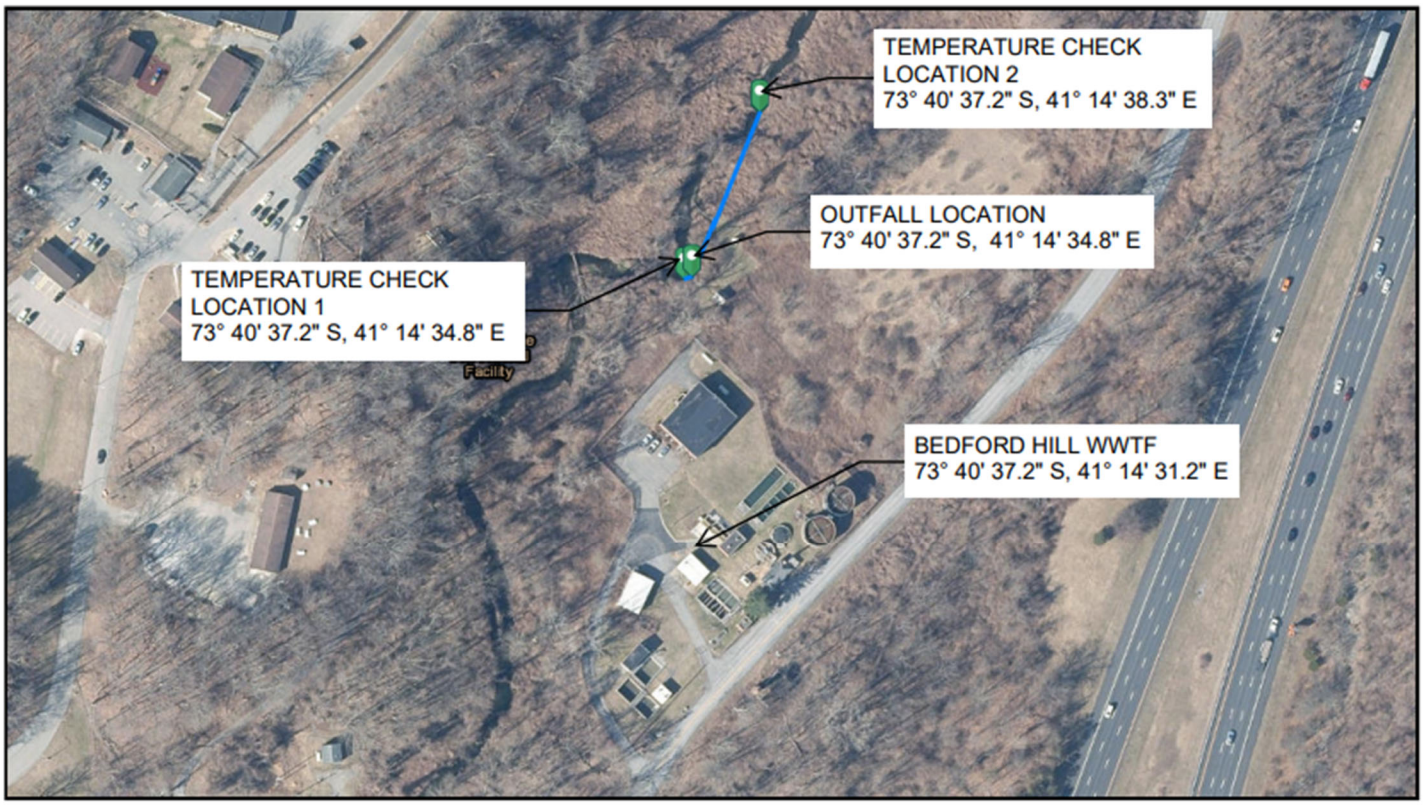
Monitoring Program – Temperature shall be measured at the following three locations, on the same day once in the morning and once in the afternoon:

1. Effluent as close as practical to the outfall without influence from the receiving water.
2. receiving water downstream, about 200 feet downstream of the outfall.
3. receiving water 0 to 10 feet upstream of the outfall

The receiving water sampling locations shall be documented by the permittee and used for all subsequent monitoring, depicted on the Monitoring Locations page, locations 2 and 3 above, shall be used for monitoring unless a different location is approved by the Department. Temperature monitoring (i.e., collection and analysis of one round of influent, effluent, upstream, and downstream samples) shall be completed within one hour.

The permittee is exempt from this temperature monitoring program whenever conditions at or near the in-stream monitoring locations are unsafe due to weather.

Reporting - Results shall be appended to the corresponding Discharge Monitoring Report (DMR) and emailed in spreadsheet format to spdes.temperaturedata@dec.ny.gov



FINAL PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
001	All Year unless otherwise noted	Broad Brook	On Startup (2) or on 12/31/2025 whichever comes first	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
								Location		
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	
Flow	Monthly Average	0.56	MGD			Continuous	Recorder		X	
$CBOD_5$	Monthly Average	15	mg/l	70.0	lbs/d	2/month	6-hr Comp.	X	X	(3)
Total Suspended Solids (TSS)	Monthly Average	10	mg/l	46.7	lbs/d	2/month	6-hr Comp.	X	X	(3)
Settleable Solids	Daily Maximum	0.1	ml/l			1/day	Grab		X	
pH	Range	6.5-8.5	SU			1/day	Grab		X	
Nitrogen, Ammonia (**as N)** (June 1 – Oct 31)	Monthly Average	1.4	mg/l			2/month	6-hr. Comp.		X	(2)
Nitrogen, Ammonia (**as N**) (Nov 1 – May 31)	Monthly Average	2.8	mg/l			2/month	6-hr. Comp.		X	(2)
Total Phosphorus (as P)	Monthly Average	0.1	mg/l			2/month	6-hr. Comp.		X	
Dissolved Oxygen	Daily Minimum	7.0	mg/L			1/day	Grab		X	
Effluent Disinfection required: [X] All Year [ ] Seasonal from _____ to _____										
Coliform, Fecal	30-Day Geometric Mean	200	No./100 ml			2/month	Grab		X	
Coliform, Fecal	7-Day Geometric Mean	400	No./100 ml			2/month	Grab		X	
Coliform, Total	Daily Maximum	750	No./100 ml			2/month	Grab		X	
Chlorine, Total Residual	Daily Maximum	0.03	mg/l			1/day	Grab		X	(4,5)
Total Mercury	Daily Maximum	50	ng/L			1/month	Grab		X	
Giardia Lamblia, Cysts		See (7)	NA			NA	NA		X	(6)
Enteric Viruses		See (7)	NA			NA	NA		X	(6)
Turbidity		See (8)	NTU			Continuo	Recorder		X	(7)
ACTION LEVEL PARAMETERS	Type	Action Level	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Temperature	Daily Maximum	70	ºF			1/day	Grab		X	(8)

FOOTNOTES continued on next page:

(1) The limits on this page shall become effective upon startup of the 0.56 mgd facility. The startup date for the 0.56 mgd facility will be identified in a letter from the permittee to the offices listed on the Monitoring, Reporting and Recording page of this permit and to the Chief, Bureau of Water Permits, 625 Broadway, Albany, NY 12233-3505. Startup shall commence with DEC, EFC or Westchester County Department of Health approved reports, plans and specifications.

(2) Reporting for Ammonia has been changed from (as NH_3) to (as N) for simpler data reporting, as this is consistent with the laboratory reporting units.

(3) Effluent shall not exceed 15% and 15% of influent concentration values for $CBOD_5$ & TSS respectively.

(4) Monitoring is only required if chlorine is used for disinfection.

(5) This is a Compliance Level. The calculated WQBEL is 0.005 mg/L.

(6) Giardia Lamblia Cysts and Enteric Viruses – The facility must be capable of achieving 99.9% removal and/or inactivation of giardia lamblia cysts and enteric viruses. The capability shall be demonstrated by maintaining the turbidity and chlorine levels specified and operating the microfiltration unit and the disinfection system on a continuous basis, in accordance with the provisions set forth in the WWTP's Operation and Maintenance Manual.

(7) Turbidity – The turbidity levels shall be maintained at less than or equal to 0.5 nephelometric turbidity units (NTU) in 95% of the measurements taken each month and an instantaneous maximum of 5.0 NTU shall not be exceeded.

(8) Temperature Action Level –

Sampling Requirements - If the discharge temperature exceeds the Action Level of 70 degrees Fahrenheit the permittee shall, within one week, undertake the following one day monitoring program:

Monitoring Program – Temperature shall be measured at the following three locations, on the same day once in the morning and once in the afternoon:

1. Effluent as close as practical to the outfall without influence from the receiving water.
2. receiving water downstream, about 200 feet downstream of the outfall.
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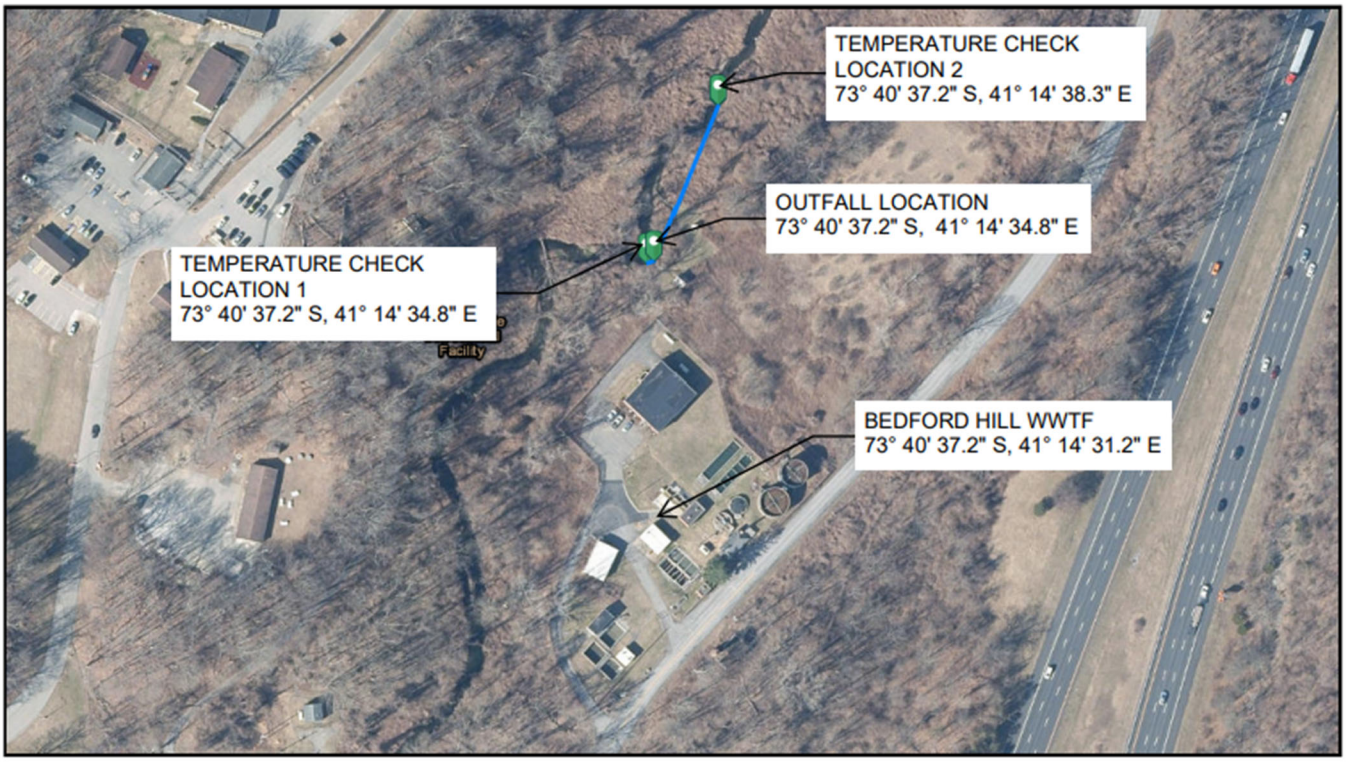
The receiving water sampling locations shall be documented by the permittee and used for all subsequent monitoring, depicted on the Monitoring Locations page, locations 2 and 3 above, shall be used for monitoring unless a different location is approved by the Department. Temperature monitoring (i.e., collection and analysis of one round of influent, effluent, upstream, and downstream samples) shall be completed within one hour.

The permittee is exempt from this temperature monitoring program whenever conditions at or near the in-stream monitoring locations are unsafe due to weather.

Reporting - Results shall be appended to the corresponding Discharge Monitoring Report (DMR) and emailed in spreadsheet format to spdes.temperaturedata@dec.ny.gov.



MERCURY MINIMIZATION PROGRAM (MMP) - Type II

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.

1. 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/or Effluent – The permittee must collect samples at the location(s) and frequency as specified in the SPDES permit limitations table. The permit includes reduced monitoring requirements and does not require key location sampling. See section 1.a.iii below.

      ii. 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 Department prior to acceptance.

      iii. Decreased Monitoring Requirements – The permittee has an EEQ at or below 12 ng/L and the permit includes the following requirements:

         1) Reduced requirements
            a) Conduct influent monitoring, sampling semi-annually, in lieu of monitoring within the collection system, such as at *key locations*; and
            b) Conduct effluent compliance sampling semi-annually.
         2) If a facility with reduced requirements reports discharges above 12 ng/L for two of four consecutive effluent samples, the Department may undertake a Department-initiated modification to remove the allowance of reduced requirements.
         3) Under the decreased permit requirements, the facility must continue to conduct a status report, as applicable in accordance with 2.c of this MMP, to determine if any waste streams have changed.

      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.

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

[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.

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

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 the Department representatives and copies shall be provided upon request.

a) Other *potential mercury sources*
   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 the Department 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 Outfall 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 Department 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).

2. 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 Department identifies inadequacies in the MMP.

[4] The form, "Amalgam Waste Compliance Report for Dental Dischargers," can be found here: https://www.dec.ny.gov/docs/water_pdf/dentalform.pdf

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

The Department 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.

SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

Outfall(s)	Compliance Action	Due Date
001	ENGINEERING REPORT The permittee shall submit an approvable engineering report that meets the requirements of the most recent version of the EFC/DEC Engineering Report Outline (https://www.dec.ny.gov/permits/6054.html). The report shall be prepared by a Professional Engineer licensed to practice engineering in New York State and detail the designs that will be used to comply with the final effluent limitations for DO, TP, TRC and Total Mercury. Approvable is defined as that which can be approved by the Department with only minimal revision. Minimal revision shall mean revised and resubmitted to the Department within sixty days of notification by the Department of the revisions that are necessary. All approvable engineering submissions must include the seal and signature of the professional engineer. DESIGN SUBMITTAL The permittee shall submit an approvable Basis of Design Report, Engineering Plans, Specifications, and Construction Schedule for the implementation of final effluent limits for DO, TP, TRC and Total Mercury. Department approval is subject to SEQR and other permits, as needed. BEGIN CONSTRUCTION The permittee shall begin construction of the treatment facilities in accordance with the Department approved schedule. COMPLETE CONSTRUCTION & COMMENCE OPERATION The permittee shall complete construction and commence operation of the system, and comply with the final effluent limitations for DO, TP, TRC and Total Mercury.	EDP + 12 Months At completion of 0.56 MGD plant or 12/31/2025, whichever comes first

The above compliance actions are one-time requirements. The permittee shall comply with the above compliance actions to the Department's satisfaction once. When this permit is administratively renewed by NYSDEC letter entitled "SPDES NOTICE/RENEWAL APPLICATION/PERMIT," the permittee is not required to repeat the submission(s) noted above. The above due dates are independent from the effective date of the permit stated in the "SPDES NOTICE/RENEWAL APPLICATION/PERMIT" letter.

INTERIM EFFLUENT LIMITS FOR PARAMETERS SUBJECT TO THIS SCHEDULE OF COMPLIANCE

Outfall	Parameter(s) Affected	Interim Effluent Limit			Limits Apply	Notes	Interim Limits Expire
		Type	Limit	Units			
001	Dissolved Oxygen	Daily Min	4.0	mg/L	All Year	-	At completion of 0.56 MGD plant or 12/31/2025, whichever comes first
001	Total Phosphorus (as P)	Monthly Avg	0.2	mg/l	All Year	-	At completion of 0.56 MGD plant or 12/31/2025, whichever comes first
001	Chlorine, Total Residual	Daily Max	0.1	mg/l	All Year	-	At completion of 0.56 MGD plant or 12/31/2025, whichever comes first

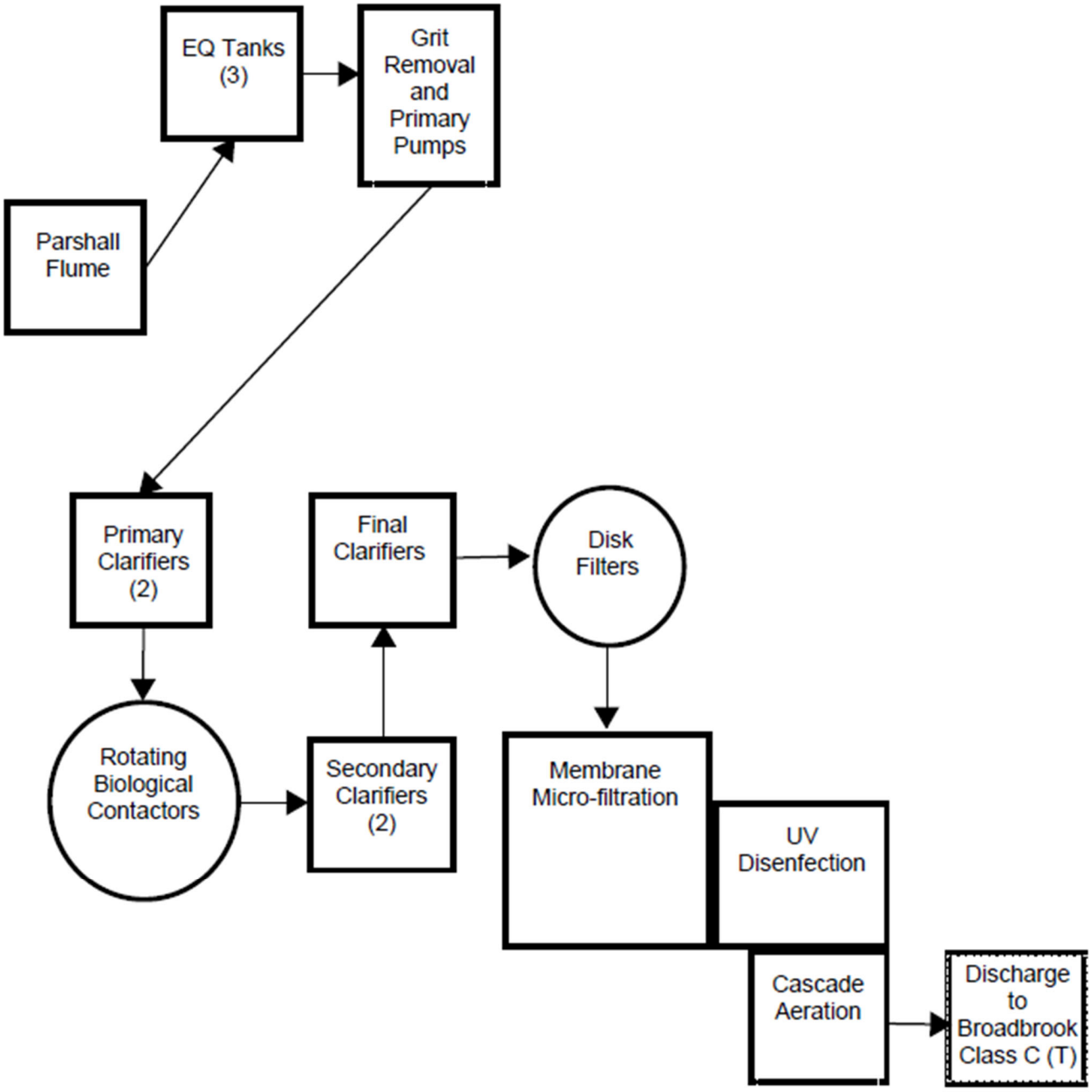
Outfall	Parameter(s) Affected	Interim Effluent Limit			Limits Apply	Notes	Interim Limits Expire
001	Total Mercury	Daily Max	Monitor	ng/l	All Year	-	At completion of 0.56 MGD plant or 12/31/2025, whichever comes first

b) The permittee shall submit a written notice of compliance or non-compliance with each of the above schedule dates
c) no later than 14 days following each elapsed date, unless conditions require more immediate notice as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2. All such compliance or non-compliance notification shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of non-compliance shall include the following information:
    1. A short description of the non-compliance;
    2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirements without further delay and to limit environmental impact associated with the non-compliance;
    3. Any details which tend to explain or mitigate an instance of non-compliance; and
    4. An estimate of the date the permittee will comply with the elapsed schedule requirement and an assessment of the probability that the permittee will meet the next scheduled requirement on time.

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

MONITORING LOCATIONS

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



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 Department 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.
    d. In addition to the Department, 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 Department, 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 Department review and authorization. At a minimum, the permittee must notify the Department in writing of its intent to change WTC use by submitting a completed *WTC Notification Form* for each proposed WTC. The Department 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 Department. 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 Department.
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 Department'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 Department or its designated agent.

B. Discharge Monitoring Reports (DMRs): Completed DMR forms shall be submitted for each one month reporting period in accordance with the DMR Manual available on Department's website.

DMRs must be submitted electronically using the electronic reporting tool (NetDMR) specified by NYSDEC. Instructions on the use of NetDMR can be found at https://www.dec.ny.gov/chemical/103774.html. **Hardcopy paper DMRs will only be received at the address listed below, directed to the Bureau of Water Compliance, 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 RWE 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 3
100 Hillside Avenue, Suite 1W, White Plains NY 10603-2860

Phone: (914) 803-8157

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 Department'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**
	WATER TREATMENT CHEMICAL (WTC) ANNUAL REPORT FORM The permittee shall submit a completed WTC Annual Report Form each year that Water Treatment Chemicals are used. The form shall be attached to the December DMR.	December DMR if WTCs used
	ANNUAL FLOW CERTIFICATION The permittee shall submit an Annual Flow Certification form each year in accordance with 750-2.9(C)(4). The form shall be attached to the February DMR or submitted through nForm.	February DMR (March 28th)
	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
Town of Bedford
Bedford Hills Correctional Facility
NY0101885

Contents

Summary of Permit Changes

A new State Pollutant Discharge Elimination System (SPDES) permittee-initiated permit modification has been drafted for the Bedford Hills Correctional Facility. The changes to the permit are summarized below:

- Updated permit format, definitions, and general conditions
- Updated footnotes for Permit Limits, Levels and Monitoring page
- New Monitoring Location page
- Facility location coordinates are included in the permit
- Updated Recording, Reporting, and Additional Monitoring Requirements page. The current permit is classified as Significant Minor P/C/I, Class 09 and was transferred to the Town of Bedford, 11/06/2020, and became Significant Minor Municipal, Class 07. The submission of a monthly Discharge Monitoring Reports (DMR) requirement is being continued.
- Permit Limits Modifications:

  Based on the results of a water quality review of the receiving water for this facility, following changes in the final effluent limits are included:

- Permit limits for Settleable Solids, pH, Nitrogen, Ammonia (as N) for Summer and Winter, Fecal Coliform, Total Coliform and the action level for Temperature have been continued as contained in the existing permit which are protective of water quality. A water quality review has been conducted for the design flow of 0.56 mgd.

- The design flow for the treatment facility has been changed from 0.50 mgd to the permittee-initiated increased flow of 0.56 mgd.

- Nitrogen, Ammonia- Changed from daily maximum to monthly average

- $\underline{CBOD_5}$
  The effluent limit of 15 mg/l for $CBOD_5$ is being continued, and the mass loading limit of 70 lbs/d has been included due to the change in the design flow from 0.50 MGD to 0.56 MGD.

- <u>TSS</u>
  The effluent limit of 10 mg/l for TSS is being continued, and the mass loading limit of 46.7 lbs/d has been included due to the change in the design flow from 0.50 MGD to 0.56 MGD.

- <u>Dissolved Oxygen (June 1-Oct 31)</u>
  The downstream DO concentration was modeled using the Streeter-Phelps equations and the following assumptions: Effluent DO = 7.0 mg/l, (2 reach model), Effluent $CBOD_5$ = 15 mg/L (2 reach model), Effluent NOD = 10.2 mg/L (2 reach model). The 2-reach model showed the existing permit limits passed the DO Sag.
  Reach Description: The model included the additional flow from the confluence with the Stone Hill River. The model ended when the Stone Hill River flowed into the Muscoot/Upper New Croton Reservoir. The model showed that a WQBEL for [DO] is necessary to maintain adequate downstream water quality.

- <u>Dissolved Oxygen (Nov 1- May 31)</u> -
  The downstream DO concentration was modeled using the Streeter-Phelps equations and the following assumptions: Effluent DO = 7.0 mg/l, (2 reach model), Effluent CBOD5 = 15 mg/L (2 reach model), Effluent NOD = 20.5 mg/L (2 reach model). The 2-reach model showed the existing permit limits passed the DO Sag.
  Reach Description: The model included the additional flow from the confluence with the Stone Hill River. The model ended when the Stone Hill River flowed into the Muscoot/Upper New Croton

Reservoir. The model showed that a WQBEL for [DO] is necessary to maintain adequate downstream water quality.

- Total Phosphorus –
  As per the Rules and Regulations for the Protection from Contamination, Degradation and Pollution of the New York City Water Supply and its Sources any facility that discharges 0.56 mgd or more shall have a phosphorus concentration limit of 0.1 mg/L. - NYCDEP Variance process.

- Total Residual Chlorine (TRC) –
  Due to the low dilution, the calculated WQBEL is less than the TBEL and less than the minimum level of detection. Therefore, an effluent limitation equal to the minimum level of detection of 0.030 mg/L is appropriate

- Total Mercury -
  As per TOGS 1.3.10, based on one data point(s) of 1.5 ng/L collected as part of the application, an effluent limitation of 50 ng/L is included in the permit on a daily max basis. The facility is a Municipal facility (07) and accepts hauled waste, and the permit includes requirements for the implementation of MMP Type II.

This factsheet 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 factsheet.

Administrative History

09/01/1997 The first full technical review was performed, and the original permit was issued with an expiration date of 09/01/2002.

03/18/2002 The permit was administratively renewed.

05/12/2004 The DIM was performed in accordance with the provisions of the UPA.

09/01/2007 Permit was administratively renewed with an expiration date of 08/31/2012.

02/04/2016 Permit was modified and issued, 11/01/2012, with an expiration date of 10/31/2017.

11/01/2017 Administrative renewal was issued with an expiration date of 10/31/2022.

11/06/2020 Permit was transferred from NYSDOCCS to the Town of Bedford as the permittee and the permit class was changed from 09-Significant Minor PCI to 07- Significant Minor Municipal.

01/10/2022 The Town of Bedford submitted a NY-2A permit application to modify the permit (PIM) to increase the design flow capacity of the WWTP from 0.50 MGD to 0.56 MGD.

Facility Information

This facility is a publicly owned treatment works that receives flow from domestic users, with effluent consisting of treated sanitary wastewater. The collection system consists of separate sewers. The facility does not have any significant industrial users (SIUs), and the system is municipal wastewater from the Town of Bedford as well as the two New York State Correctional Facilities.

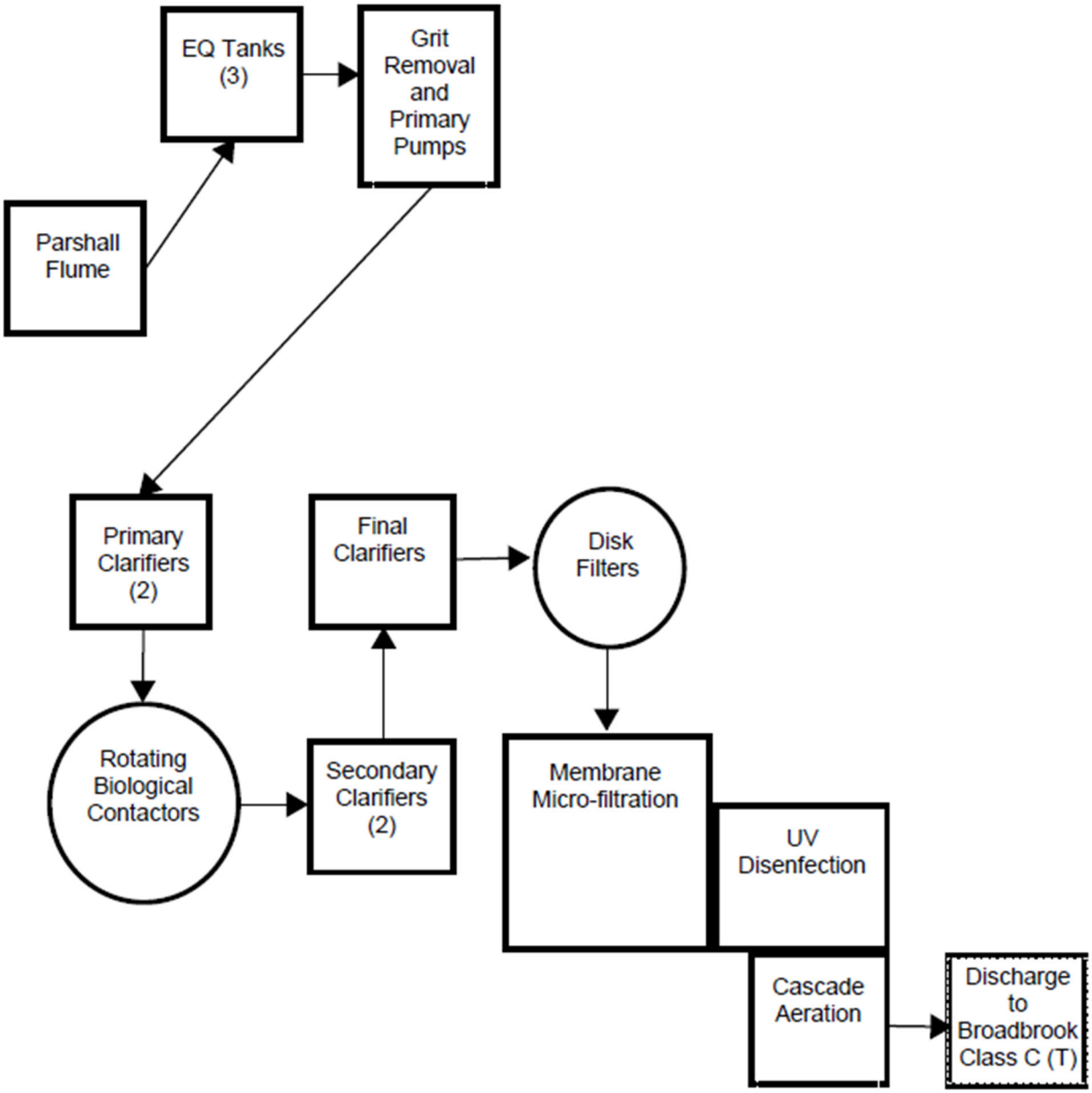
The existing treatment plant is constructed for a design flow of 0.50 MGD. A treatment plant expansion is proposed to a design flow of 0.56 MGD from the current permitted flow of 0.50 MGD.

The current and proposed treatment plant consists of:

- Preliminary Treatment: Screening, grinding, grit removal
- Primary Treatment: Primary Clarification
- Secondary Treatment: RBC, Secondary Clarification, Disc Filters
- Tertiary Treatment: Microfiltration, Cascade Aeration
- Disinfection: UV Disinfection

Liquid sludge is hauled offsite.

Site Overview



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 submitted by the permittee for the period 1/31/2017 to 12/31/2021.

Receiving Water Information

The facility discharges via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	4952	Treated Sanitary Sewage	Broad Brook, Class C(TS)

The location of the outfall(s), and the name, classification, and index numbers of the receiving waters are indicated in the Outfall and Receiving Water Summary Table at the end of this fact sheet. Appendix Link

The facility currently discharges wastewater to waters of the state via Outfall 001. The current treatment plant is designed for flow of 0.50 MGD.

Expansion of the treatment plant has been proposed by increased design flow capacity to 0.56 MGD.

Muscoot Reservoir Phosphorus TMDL: The facility is within the Muscoot Reservoir Watershed with a phosphorus TMDL, and the facility is listed with a TP limit of 0.2 mg/L and 0.8 lbs/day. The link to the June 2000 TMDL for the NYC Watershed: https://www.dec.ny.gov/docs/water_pdf/nycjune2000.pdf

Critical Receiving Water Data & Mixing Zon

The low flow condition for the Broad Brook was obtained from a drainage basin ratio analysis with USGS gage station 1374918, Stone Hill River South of Katonah NY located Bedford NY. The gauge did not have enough data to provide a 1Q10, 7Q10 and 30Q10 flow but there was enough data to provide a 1Q9, 7Q9, and 30Q9. While these flows under normal circumstance are not equivalent due to the lack of other gauges in avaible to use the flows of 1Q9, 7Q9, and 30Q9 will be used as equivalents for this permit and referred to as 1Q10, 7Q10, and 30Q10 going forward.

The gage was also located downstream of the facility, to appropriately estimate low flow statistics at the facility the average facility flow was subtracted from the low flow before a 1Q10, 7Q10, and 30Q10 were estimated. The average flow of the facility was taken from 2019-2022 with an average flow of 0.22 cfs.

The gage were found from the USGS SW Toolbox software and an analysis of data from 4/1/2000 to 4/1/2009.

Gage Name: Stone Hill River South of Katonah NY
Gage ID: 1374918

Drainage Area at Gage (mi^2): 18.7
Drainage Area at Facility (mi^2): 5
Average Flow at Facility (CFS): 0.22
1Q10 Flow at Gage (CFS): 1.52
7Q10 Flow at Gage (CFS): 1.85
30Q10 Flow at Gage (CFS): 2.62 Source: Bulletin 74
Calculated 1Q10 (CFS): 0.35
Calculated 7Q10 (CFS): 0.44
Calculated 30Q10 (CFS): 0.64

The 1Q10, 7Q10, and 30Q10 flows were used to calculate the acute, chronic, and human, aesthetic, wildlife (HEW) dilution ratios, respectively.

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	1.5	1.6	1.9	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

None of the seven criteria that are indicative of potential toxicity and listed in the Appendix to this factsheet, are applicable to this facility. Therefore, WET testing is not included in the permit.

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)[1] 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.

Additionally, the permit contains a requirement to make the DMR sampling data available to the public upon request.

[1] As prescribed by 6 NYCRR Part 617

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 is required to develop, maintain, and implement a temperature management plan (see permit for details). The purpose of this plan is to minimize the thermal impacts to the receiving water. The goal of the temperature management plan will be to reduce effluent temperature below the 70ºF action level.

Mercury[2]

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

MMP TYPE II

The facility is a Municipal facility (07) and accepts hauled waste, and the permit includes requirements for the implementation of MMP Type II.

Based on one data point(s) of 1.5 ng/L collected as part of the application the facility is expected to meet the new daily max permit limit of 50 ng/L (with monthly sampling frequency). 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.

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

- Additional monitoring
- Control strategy for implementation of the MMP
- Annual status report (maintained onsite)

Schedule of Compliance

A Schedule of Compliance is being included for the following items

- Compliance period for attainment of final effluent limits for DO, TP, TRC and the Total Mercury.
- Submittal of an approvable engineering report (preliminary report) summarizing the facility upgrades needed to comply with the final effluent limitations for DO, TP, TRC and the Total Mercury. The report must meet the requirements of the EFC/DEC Engineering Report Outline.
- Submittal of approvable engineering design documents, including a basis of design report with the details of the upgrades needed to comply with the final effluent limitations.
- Construction milestones for the approved upgrades - comply with final effluent limits at completion of 0.56 MGD plant or 12/31/2025, whichever comes first.

Schedule(s) of Additional Submittals

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

- WTC annual report form if needed
- Mercury Minimization plan maintained onsite with annual status report

[2] In accordance with DOW 1.3.10 Mercury – SPDES Permitting & Multiple Discharge Variance (MDV), December 30, 2020.

and conditional exclusion certification submitted every 5 years.

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	41° 14' 36" N	73° 40' 39" W	Broad Brook	C(TS)	H-31-P44-36-2 PWL: 1302-0059	13 / 02	N/A	0.23	0.28	0.41	0.56	1.5	1.6	1.9

POLLUTANT SUMMARY TABLE

Outfall 001

Outfall #	001	**Description of Wastewater: Sanitary**													
		Type of Treatment: Screening, grit removal, EQ tanks, Primary Clarifiers, RBCs, Secondary Clarifier, Disc Filters, Membrane microfilters, UV disinfection, Cascade aeration.													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[3]	# 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 1/31/2017 to 12/31/2021 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	0.5		/	0.5	Design Flow	Narrative: The existing flow limit is 0.5 mgd, and is proposed for expansion to 0.56 mgd.					703.2	-	-
	The flow limit is set at the design flow of the wastewater treatment facility.														
pH	SU	Minimum	6.5	6.95	60/0	6.5	Antibacksliding	-	-	6.5 – 8.5	Range	6.5 - 8.5	703.3	-	TBEL
		Maximum	8.5	8.03	60/0	8.5									
	Given the available dilution, an effluent limitation equal to the TBEL and consistent with TOGS 1.3.3, is reasonably protective of the WQS and will be continued.														
Temperature	°F	Daily Max	Action level		/	Action level	TBEL	-	Narrative (Trout): No discharge at a temperature over 70F (21C) shall be permitted at any time to streams classified for trout				704.2	-	TBEL

[3] Existing Effluent Quality: 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)

	Following Department guidance for municipal discharges to trout or trout spawning streams, the Department has determined that an action level of 70 F continues to be required.														
Dissolved Oxygen (DO) Summer June 1st – Oct. 31st	mg/L	Daily Min	4.0	11.8	60/0	4.0	Antibacksliding	7.55	6.73 Critical Point	(TS) 7.0 mg/L	Narrative	7.0	703.3	-	WQBEL
	The downstream DO concentration was modeled using the Streeter-Phelps equations and the following assumptions: Effluent DO = 7.0 mg/l, (2 reach model), Effluent $CBOD_5$ = 15 mg/L (2 reach model), Effluent NOD = 10.2 mg/L (2 reach model). The 2-reach model showed the existing permit limits passed the DO Sag. Reach Description: The model included the additional flow from the confluence with the Stone Hill River. The model ended when the Stone Hill River flowed into the Muscoot/Upper New Croton Reservoir. The model showed that a WQBEL for [DO] is necessary to maintain adequate downstream water quality.														
Dissolved Oxygen (DO) Winter Nov. 1st – May 31st	mg/L	Daily Min	4.0	11.8	60/0	4.0	Antibacksliding	10.14	7.51 Critical Point	(TS) 7.0 mg/L	Narrative	7.0	703.3	-	WQBEL
	The downstream DO concentration was modeled using the Streeter-Phelps equations and the following assumptions: Effluent DO = 7.0 mg/l, (2 reach model), Effluent CBOD5 = 15 mg/L (2 reach model), Effluent NOD = 20.5 mg/L (2 reach model). The 2-reach model showed the existing permit limits passed the DO Sag. Reach Description: The model included the additional flow from the confluence with the Stone Hill River. The model ended when the Stone Hill River flowed into the Muscoot/Upper New Croton Reservoir. The model showed that a WQBEL for [DO] is necessary to maintain adequate downstream water quality.														
5-day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)		Monthly Avg	15	Not enough detects	0/60	15	Antibacksliding	-	See Dissolved Oxygen			15	703.3	-	TBEL
	lbs/d	Monthly Avg	63	6.17	11/49	63	Antibacksliding					70			
	% Rem	Minimum										-			
	The downstream DO concentration was modeled using the Streeter-Phelps equations and the following assumptions: Effluent DO = 7.0 mg/l, Effluent UOD = 42.45 mg/L (RSAT Model), Effluent $CBOD_5$ = 15 mg/L (RSAT Model), Effluent NOD = 20.5 mg/L (RSAT Model). Reach Description: The model included the additional flow from the confluence with the Stone Hill River. The model ended when the Stone Hill River flowed into the Muscoot/Upper New Croton Reservoir. The model showed that a WQBEL for [DO, CBOD, and Ammonia] is necessary to maintain adequate downstream water quality.														
Total Suspended Solids (TSS)	mg/L	Monthly Avg	10	# Out of Range	1/59	10	Antibacksliding	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages. (703.2)			10	TOGS 1.3.1	-	ISEL
	lbs/d	Monthly Avg	42	1.95	12/48	42	Antibacksliding					46.7			

	% Rem	Minimum												
	Consistent with TOGS 1.3.1, intermittent stream effluent limits (ISEL) are applied to effluent discharges to streams where little or no streamflow is available for dilution.													
Settleable Solids	mL/L	Daily Max	0.1	Not enough detects	0/60	0.1	Antibacksliding	-	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 0.1 mL/L for POTWs providing secondary treatment and filtration. Given that adequate dilution is not available the TBEL is reasonably protective of the WQS.													
Nitrogen, Ammonia (as N)	mg/L	Daily Max	1.4	12.06	5/0	1.4	Antibacksliding	0.082	29 mg/L	0.9	A(C)	1.4	40CFR 122.44 (RSAT)	-	TBEL
Summer	lbs/d						Antibacksliding	-	-	-	-				
June 1st – Oct. 31st	The WQS for Ammonia was determined from TOGS 1.1.1 from a summer pH of 7.5 and a temperature of 24. The pH and temperature of the receiving waterbody were assumed values and consistent with TOGS 1.3.1E The WQBEL was calculated using the water quality standard, an ambient upstream concentration of 0.082. The ammonia limit is based on the oxygen demanding component of ammonia and the waste assimilative capacity of the stream. The existing permit limit is greater than the calculated WQBEL and is being decreased to equal the WQBEL to protect water quality Reporting for 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.													
Nitrogen, Ammonia (as N)	mg/L	Daily Max	2.8	12.9	5/0	2.8	Antibacksliding	0.082	39 mg	1.9	A(C)	2.8	40CFR 122.44 (RSAT)	-	TBEL
Winter	lbs/d						Antibacksliding	-	-	-	-				
Nov. 1st – May 31st	The WQBEL was calculated using the water quality standard, an ambient upstream concentration of 0.082 and application of the HEW dilution ratio. The WQBEL for ammonia limit is based on the toxic effect. The existing permit limit is less than the calculated WQBEL and is protective of water quality and will remain. Reporting for 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.													
Total	mg/L	Monthly Avg	0.2	0.104	49/11	0.2	TOGS 1.3.6	-	-	Narrative: None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.		0.1	NYCDEP Variance	-	NYCDEP Variance
Phosphorus								-	-			-			
								-	-			-			
		12 Month Load						-	-			-			

lb/mon

lb/yr

As per the *Rules and Regulations for the Protection from Contamination, Degradation and Pollution of the New York City Water Supply and its Sources* any facility that discharges 0.56 mgd or more shall have a phosphorus concentration limit of 0.1 mg/L.																
Total Mercury	ng/L	Daily Max					ILCA	-	-	0.7	H(FC)	50	GLCA	-	DOW 1.3.10
	Mercury section of this factsheet.															
Coliform, Fecal	#/100 ml	30d Geo Mean	200	Not enough detects	0/60	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	30.27	4/56	400	TOGS 1.3.3	-							
See	Consistent with TOGS 1.3.3, effluent disinfection is required year-round because it is necessary to protect public health. Fecal coliform effluent limitations equal to the TBEL are specified.														
Total Residual Chlorine (TRC)	mg/L	Daily Max	0.1	Not enough detects	0/0	0.1	TOGS 1.3.3	-	.005	0.005	A(C)	0.008	-	0.03	WQBEL
	Due to the low dilution, the calculated WQBEL is less than the TBEL and less than the minimum level of detection. Therefore, an effluent limitation equal to the minimum level of detection of 0.030 mg/L is appropriate.														
Additional Pollutants Detected															
Giardia Lamblia, Cysts															
	This requirement has been continued from the previous permit – See Final Permit Limits FN (7)														
Enteric Viruses															
	This requirement has been continued from the previous permit – See Final Permit Limits FN (7)														
Turbidity	NTU	Continuous													
	This requirement has been continued from the previous permit – See Final Permit Limits FN (8)														
Coliform, Total	#/100 ml	Daily Max	750	562.9	16/44	750									TBEL
	This permit limit requirement is being continued from the previous permit.														

Appendix: Regulatory and Technical Basis of Permit Authorizations

The Appendix is meant to supplement the factsheet 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 factsheet:

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

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, and/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 factsheet. Consistent with current case law[4] and USEPA interpretation[5] 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.

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)

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

[4] American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)
[5] 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)

is either a trickling filter or a waste stabilization pond; the treatment works provides significant biological treatment of municipal wastewater; and, the effluent concentrations consistently achievable through proper operation and maintenance of the facility cannot meet traditional secondary treatment requirements. There are no federal technology-based standards for toxic pollutants from POTWs. A statistical analysis of existing effluent data, as described in TOGS 1.2.1, may be used to establish other performance-based TBELs.

Water Quality-Based Effluent Limitations (WQBELs)

In addition to the TBELs, permits must include additional or more stringent effluent limitations and conditions, including those necessary to protect water quality. CWA sections 101 and 301(b)(1)(C), 40 CFR 122.44(d)(1), and 6 NYCRR 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. 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 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 Department 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 Department 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 Department;

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 Department 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 Department 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.

A Watershed Maximum Daily Load (WMDL) may be developed by the Department to account for the cumulative effect of multiple discharges of conservative toxic pollutants to ensure water quality standards are met in downstream segments. The WMDL uses a simple dilution model, assuming full mix in the receiving stream, to calculate the maximum allowable pollutant load that can be discharged and still meet water quality standards during critical low flow in downstream segments such as those with sensitive receptors (e.g. public water supply) or higher water classification. WQBELs are established to ensure that the cumulative mass load from point source discharges does not exceed the maximum allowable load to ensure permit limits are protective of water quality.

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.

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 Department 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.