State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	**4952**	NAICS Code:	**221320**	SPDES Number:	**NY0087971**
Discharge Class (CL):	**05**			DEC Number:	**4-3832-00011/00001**
Toxic Class (TX):	**T**			Effective Date (EDP):	**EDP**
Major-Sub Drainage Basin:	**13 - 01**			Expiration Date (ExDP):	**ExDP**
Water Index Number:	**H**	Item No.:	**858.4 - 4**	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:	**Rensselaer County Sewer District #1**	Attention:	**Derrick Gardner, Administrative Director**		
Street:	**99 Troy Rd.**				
City:	**East Greenbush**	State:	**NY**	Zip Code:	**12061**
Email:	**Derrick.gardner@rensco.com**	Phone:	**(518) 283-2235**		

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL														
Name:	**Rensselaer County Sewer District #1 WWTP**													
Address / Location:	**Foot of Water St.**									County:	**Rensselaer**			
City:	**Troy**					State:	**NY**			Zip Code:	**12180**			
Facility Location:		Latitude:	**42**	°	**40**	'	**58**	" N	& Longitude:	**73**	°	**42**	'	**48**	" W
Primary Outfall No.:	**001**	Latitude:	**42**	°	**40**	'	**52**	" N	& Longitude:	**73**	°	**43**	'	**0**	" W
Outfall Description:	**Treated Sanitary**	Receiving Water:	**Hudson River**						Class:	**C**		Standard:		**C**	

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:
CO BWP - Permit Coordinator
BWP – Permit Writer
CO BWC - SCIS
RWE
RPA
EPA Region II
NYSEFC

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

City of Troy Outfalls and Corresponding Rensselaer County Regulators

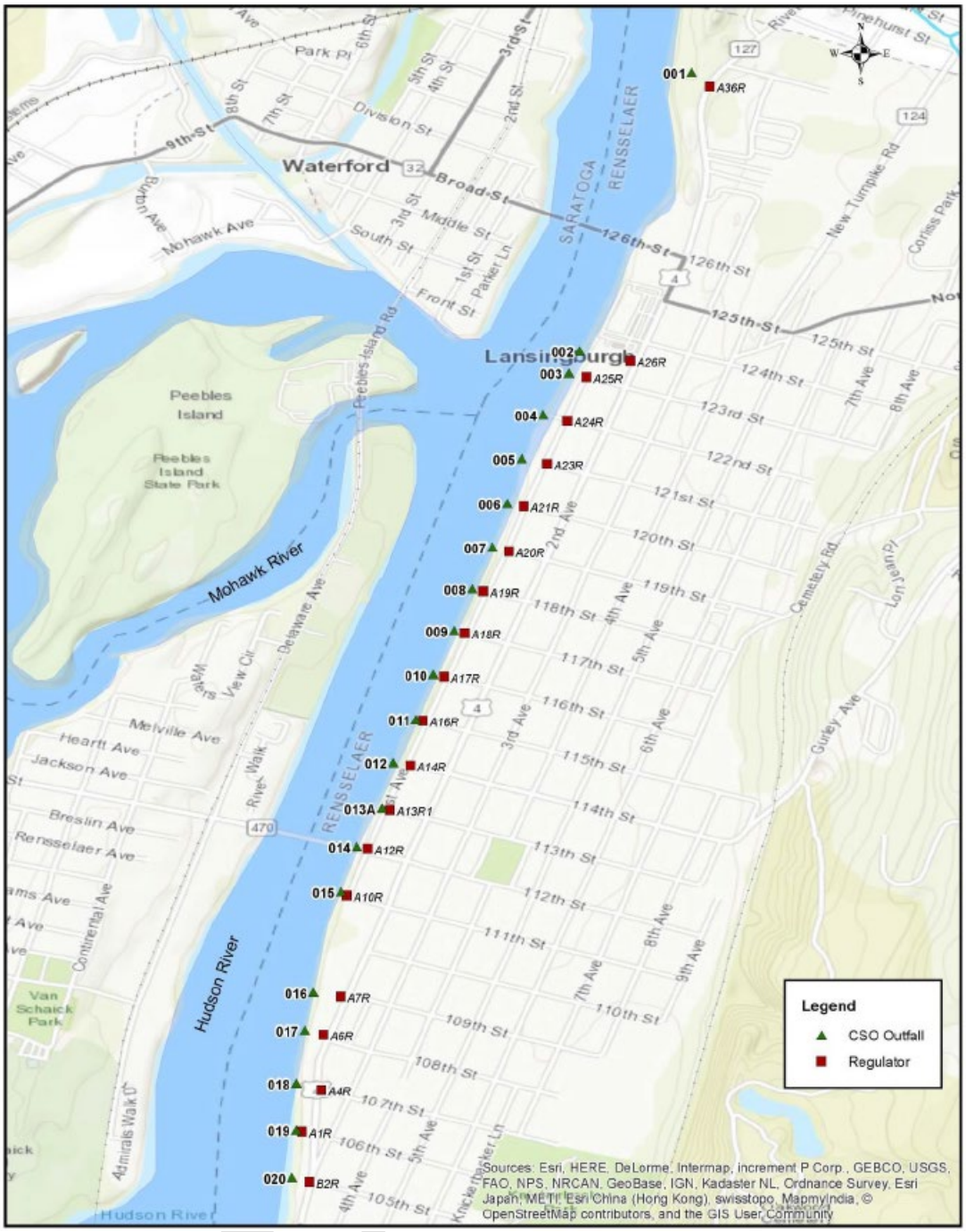
*City of Troy's outfalls are permitted under NY0099309

City of Troy Outfalls			Rensselaer County Regulators				
ID	LATITUDE LONGITUDE	RECEIVING WATER CLASS	RCSD ID	TYPE	TIDE GATE	LATITUDE LONGITUDE	LOCATION
001	42.792985 -73.67098	Hudson River Class C	A36R	Hand Wheel Gate	No	42.792587 -73.670479	River Road/6th Ave Ext.
002	42.785244 -73.67409	Hudson River Class C	A26R	Hand Wheel Gate	Yes	42.784961 -73.672688	123rd
003	42.784629 -73.6744	Hudson River Class C	A25R	Hand Wheel Gate	Yes	42.784509 -73.673906	123rd
004	42.783474 -73.67511	Hudson River Class C	A24R	Hand Wheel Gate	Yes	42.783295 -73.674442	122nd
005	42.782253 -73.67571	Hudson River Class C	A23R	Hand Wheel Gate	Yes	42.782096 -73.674998	121st
006	42.781006 -73.67611	Hudson River Class C	A21R	Hand Wheel Gate	Yes	42.780921 -73.675655	120th
007	42.779789 -73.67652	Hudson River Class C	A20R	Hand Wheel Gate	Yes	42.779667 -73.67607	119th
008	42.778634 -73.67708	Hudson River Class C	A19R	Hand Wheel Gate	Yes	42.778555 -73.676778	118th
009	42.777471 -73.67759	Hudson River Class C	A18R	Hand Wheel Gate	Yes	42.777394 -73.677293	117th
010	42.776245 -73.67817	Hudson River Class C	A17R	Hand Wheel Gate	Yes	42.776178 -73.677871	116th
011	42.775002 -73.67865	Hudson River Class C	A16R	Hand Wheel Gate	Yes	42.774965 -73.678459	115th
012	42.773804 -73.67928	Hudson River Class C	A14R	Hand Wheel Gate	Yes	42.773711 -73.67881	114th
013A	42.77253 -73.67959	Hudson River Class C	A13R1	Hand Wheel Gate	Yes	42.772483 -73.679379	113th
014	42.771471 -73.68029	Hudson River Class C	A12R	Hand Wheel Gate	Yes	42.771398 -73.679993	112th
015	42.770216 -73.68074	Hudson River Class C	A10R	Hand Wheel Gate	Yes	42.770101 -73.680573	111th
016	42.767414 -73.6815	Hudson River Class C	A7R	Hand Wheel Gate	Yes	42.767294 -73.680746	109th
017	42.766366 -73.68175	Hudson River Class C	A6R	Hand Wheel Gate	Yes	42.766232 -73.681222	108th
018	42.764889 -73.68198	Hudson River Class C	A4R	Hand Wheel Gate	Yes	42.764702 -73.681277	107th
019	42.763593 -73.68198	Hudson River Class C	A1R	Hand Wheel Gate	Yes	42.763543 -73.681815	106th

City of Troy Outfalls and Corresponding Rensselaer County Regulators - Continue

City of Troy Outfalls			Rensselaer County Regulators				
ID	LATITUDE LONGITUDE	RECEIVING WATER CLASS	RCSD ID	TYPE	TIDE GATE	LATITUDE LONGITUDE	LOCATION
020	42.762266 -73.6821	Hudson River Class C	B2R	Hand Wheel Gate	Yes	42.762141 -73.681613	105th
022	42.743307 -73.68591	Hudson River Class C	D37R	Float Chamber	Yes	42.743181 -73.685048	Rensselaer
023	42.740916 -73.68662	Hudson River Class C	D29R	Hand Wheel Gate	Yes	42.740847 -73.686061	Vanderheyden
024	42.73987 -73.68682	Hudson River Class C	D28R	Float Chamber	Yes	42.739769 -73.686187	Hoosick
025	42.738112 -73.68748	Hudson River Class C	D26R	Hand Wheel Gate	Yes	42.738074 -73.68691	Hutton
026	42.736475 -73.68802	Hudson River Class C	D24R	Float Chamber	Yes	42.736279 -73.687337	Jacob
027	42.734964 -73.68908	Hudson River Class C	D20R	Float Chamber	Yes	42.734725 -73.68861	Federal
028	42.734169 -73.68993	Hudson River Class C	D18R	Hand Wheel Gate	Yes	42.734344 -73.689312	Grand
029	42.733421 -73.69099	Hudson River Class C	D17AR	Hand Wheel Gate	Yes	42.733344 -73.690877	Fulton
030	42.732246 -73.69261	Hudson River Class	D16R	Hand Wheel Gate	Yes	42.732153 -73.692496	Broadway

City of Troy Outfalls and Corresponding Rensselaer County Regulators - Continue



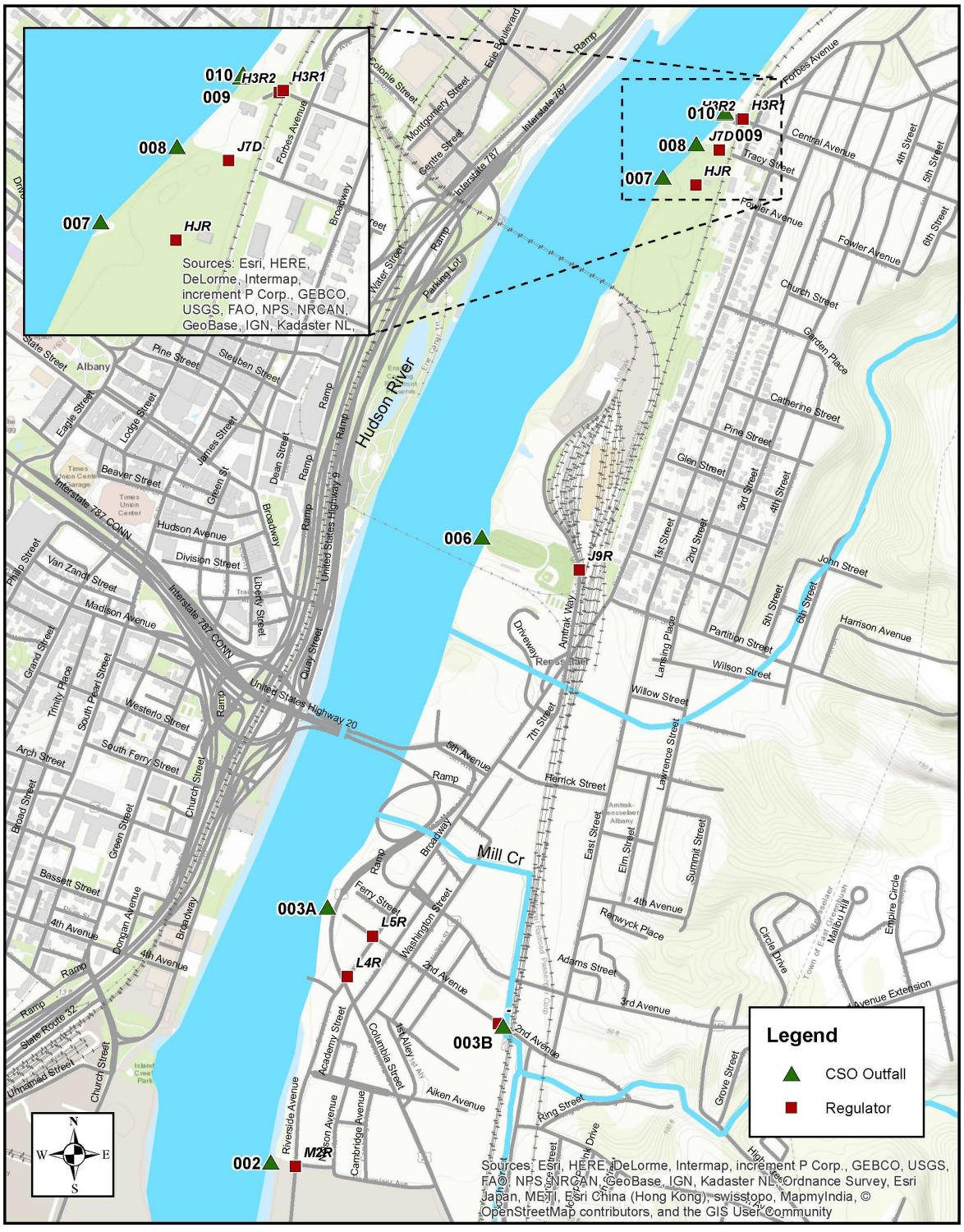
City of Rensselaer Outfalls and Corresponding Rensselaer County Regulators

*City of Rensselaer's outfalls are permitted under NY0026026

City of Rensselaer Outfalls			Rensselaer County Regulators				
ID	LATITUDE LONGITUDE	RECEIVING WATER CLASS	ID	TYPE	TIDE GATE	LATITUDE LONGITUDE	LOCATION
002	42.633440 -73.750462	Hudson River Class C	M2R	Dam & Hand Wheel Gate	Yes	42.633333 -73.749694	Belmore Place & Riverside Avenue
003A	42.639267 -73.748630	Hudson River Class C	L5R	Dam & Hand Wheel Gate	Yes	42.638591 -73.747235	2nd Avenue & Broadway
			L4R	Dam & Hand Wheel Gate	No	42.637672 -73.748032	Columbia Street & Broadway
007	42.655921 -73.738023	Hudson River Class C	HJR	Dam & Hand Wheel Gate	Yes	42.655730 -73.737001	Forbes Avenue Pumping Station near Fowler Avenue
008	42.656672 -73.736975	Hudson River Class C	J7D	Dam & Hand Wheel Gate	Yes	42.656525 -73.736270	Tracy Avenue at Railroad Crossing
009	42.657366 -73.736095	Hudson River Class C	H3R2	Dam & Hand Wheel Gate	Yes	42.657206 -73.735574	Near Central Avenue and Forbes Avenue across Railroad Tracks
010	42.657399 -73.736067	Hudson River Class C	H3R1	Dam & Hand Wheel Gate	Yes	42.657225 -73.735516	Near Central Avenue and Forbes Avenue across Railroad Tracks

City of Rensselaer Outfalls and Corresponding Rensselaer County Regulators - Continue

OUTFALL AND REGULATOR LOCATIONS



*Outfalls 003B and 006 were eliminated.

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.
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 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.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
001	All Year Unless Otherwise Noted	Hudson River	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
								Location		
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	
Flow	Monthly Average	24	MGD			Continuous	Recorder	X		
	Daily Maximum	Monitor	MGD			Continuous	Recorder	X		
pH	Daily Minimum	6.0	SU			6/Day	Grab		X	
	Daily Maximum	9.0	SU							
Temperature	Daily Maximum	Monitor	ºF			6/Day	Grab		X	
$CBOD_5$	Monthly Average	25	mg/L	5,000	lbs/d	3/Week	24-hr. Comp.	X	X	1
	7-Day Average	40	mg/L	8,000	lbs/d	3/Week	24-hr. Comp.		X	
Total Suspended Solids (TSS)	Monthly Average	30	mg/L	6,000	lbs/d	3/Week	24-hr. Comp.	X	X	1
	7-Day Average	45	mg/L	9,000	lbs/d	3/Week	24-hr. Comp.		X	
Settleable Solids	Daily Maximum	0.3	mL/L			6/Day	Grab		X	
Total Kjeldahl Nitrogen (TKN) (as N) June 1st to October 31st	Monthly Average	16	mg/L			1/Month	24-hr. Comp.		X	
Total Mercury	12 MRA	12	ng/L			1/Quarter	Calculated		X	2,3
Total Mercury	Daily Maximum	50	ng/L			1/Quarter	Grab	X	X	3
Total Lead	Daily Maximum	Monitor	mg/L	2.5	lbs/d	1/Quarter	24-hr. Comp.		X	
Biennial Pollutant Scan						1/Two Years	-		X	4

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/Day	Grab		X	
Coliform, Fecal	7-Day Geometric Mean	400	No./ 100 mL			1/Day	Grab		X	
Chlorine, Total Residual	Daily Maximum	0.6	mg/L			6/Day	Grab		X	5

ACTION LEVEL PARAMETERS	Type	Action Level	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Total Zinc	Daily Maximum	Monitor	mg/L	23	lbs/d	1/Quarter	24-hr. Comp.		X	3,6

WHOLE EFFLUENT TOXICITY (WET) TESTING		Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
WET - Acute Invertebrate	See footnote			12	TUa	1/Quarter	See footnote		X	3,7
WET - Acute Vertebrate	See footnote			12	TUa	1/Quarter	See footnote		X	3,7
WET - Chronic Invertebrate	See footnote			78	TUc	1/Quarter	See footnote		X	3,7
WET - Chronic Vertebrate	See footnote			78	TUc	1/Quarter	See footnote		X	3,7

FOOTNOTES:

1. Effluent shall not exceed 15% and 15% of influent concentration values for $CBOD_5$ & TSS respectively. The permittee is not required to calculate percent removals on days when the daily average flow exceeds 24 mgd.

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

3. 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).

4. 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.

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

6. Action Levels: If the action level is exceeded, the additional monitoring requirement is triggered, and the permittee shall undertake a short-term, high-intensity, monitoring program. 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 Department 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 DMR data.

7. **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 Department. 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 41:1 for acute, and 78:1 for chronic. Discharges which are disinfected using chlorine should be dechlorinated prior to WET testing or samples shall be taken immediately prior to the chlorination system.

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 Department 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 Department 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.

BEST MANAGEMENT PRACTICES FOR COMBINED SEWER OVERFLOWS

The permittee shall implement the following Best Management Practices (BMPs). These BMPs are designed to implement operation & maintenance procedures, utilize the existing treatment facility and collection system to the maximum extent practicable, and implement sewer design, replacement and drainage planning, to maximize pollutant capture and minimize water quality impacts from combined sewer overflows. The BMPs are equivalent to the "Nine Minimum Control Measures" required under the USEPA National Combined Sewer Overflow policy. The EPA's policy is available at https://www.epa.gov/npdes/combined-sewer-overflows-csos

1. CSO Maintenance/Inspection - The permittee shall maintain a written maintenance and inspection program for all District-owned flow recording devices, pump stations, interceptors, regulators and tide-gates. This program shall be conducted during periods of both dry and wet weather to minimize the occurrence of dry weather overflows related to District-owned appurtenances and ensure the maximum amount of wet weather flow is conveyed to the WWTP for treatment. This program shall consist of inspections with required repair, cleaning and maintenance done as needed. This program shall consist of at least monthly inspections. This program shall be consistent with the Combined Sewer System, Inspection and Maintenance Plan developed by City of Troy, City of Rensselaer, and Rensselaer County Sewer district under the Order of Consent, Order # CO 4-20091123-154, for wet weather overflows to the Hudson River

   Inspection reports shall be completed indicating visual inspection, any observed flow, incidence of rain or snowmelt, condition of equipment and work required. The pump stations and regulators reports shall be in a format approved by the Region 4 Office and submitted to the Region with the monthly operating report (Form 92-15-7).

2. Maximum Use of Collection System for Storage – The permittee shall optimize the District-owned collection system by operating and maintaining it to minimize the discharge of pollutants from CSOs or bypass events. It is intended that the maximum amount of in-system storage capacity be used (without causing service backups) to minimize CSOs from tributary collection systems and convey the maximum amount of combined sewage to the treatment plant in accordance with BMP No. 4 below. This shall be accomplished by an evaluation of the hydraulic capacity of the system but should also include a continuous program of flushing or cleaning to prevent deposition of solids and the adjustment of regulators and weirs to maximize storage.

3. Industrial Pretreatment - The permittee shall implement the approved Industrial Pretreatment Program and evaluate new and increased industrial dischargers in accordance with guidance under NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.3.8 New Discharges to POTWs. (http://www.dec.ny.gov/docs/water_pdf/togs138.pdf).

   To the maximum extent practicable, consideration shall be given to maximize the capture of nondomestic waste containing toxic pollutants and this wastewater should be given priority over residential/commercial service areas for capture and treatment by the WWTP.

4. Maximize Flow to POTW - Factors cited in Item 2. above shall also be considered in maximizing flow to the POTW. Maximum delivery to the POTW is particularly critical in treatment of "first-flush" flows. The treatment plant shall be capable of receiving and treating: the peak design hydraulic loading rates for all process units; i.e., a minimum of 63.5 MGD through the plant headworks; a minimum of 51 MGD through the primary treatment works and disinfection works if applicable; and a minimum of 51 MGD through the secondary treatment works during wet weather. The collection system and headworks must be capable of delivering these flows during wet weather. If the permittee cannot deliver maximum design flow for treatment, the permittee shall submit a plan and schedule for accomplishing this requirement within 48 months after the effective date of this permit.

5. Prohibition of Dry Weather Overflow - Dry weather overflows from the combined sewer system are prohibited. The occurrence of any dry weather overflow from District-owned assets shall be promptly abated and reported in accordance with 6 NYCRR Part 750-2.7 and to the tributary community. Should the permittee observe a dry weather overflow resulting from any other cause, the permittee will report to the tributary community in order for appropriate action to be taken.

BEST MANAGEMENT PRACTICES FOR COMBINED SEWER OVERFLOWS (continued)

6. Wet Weather Operating Plan (WWOP) - The permittee shall maximize treatment during wet weather events. This shall be accomplished by having a WWOP containing procedures so as to operate unit processes to treat maximum flows while not appreciably diminishing effluent quality or destabilizing treatment upon return to dry weather operation. The WWOP shall be developed in accordance with the DEC guidance, Wet Weather Operating Practices for POTWs With Combined Sewers, (http://www.dec.ny.gov/docs/water_pdf/wwtechtran.pdf), and submitted to the Regional Water Engineer and the Bureau of Water Permits for review and approval in accordance with the Schedule of Submittals. **A revised wet weather operating plan must be submitted whenever the POTW and/or sewer collection system is substantially replaced or modified in a manner that may impact wet weather operations.**

7. Control of Floatable and Settleable Solids - The discharge of floating solids, oil and grease, or solids of sewage origin which cause deposition in the receiving waters, is a violation of the NYS Narrative Water Quality Standards contained in Part 703. As such, the permittee shall implement best management practices in order to eliminate or minimize the discharge of these substances. All of the measures cited in Items 1, 2, 4 & 5 above shall constitute approvable "BMPs" for mitigation of this problem. If aesthetic problems persist, the permittee should consider modifications to the WWOP.

8. Combined Sewer System Replacement – Replacement of District-owned combined sewers shall not be designed or constructed unless approved by NYSDEC. When combined sewers are replaced, the design should contain cross sections which provide sewage velocities which prevent deposition of organic solids during low flow conditions.

9. Combined Sewer/Extension – Combined sewer/extension, when allowed, should be accomplished using separate sewers. These sanitary and storm sewer extensions shall be designed and constructed simultaneously but without interconnections. No new source of stormwater shall be connected to any separate sanitary sewer in the collection system.

   If separate sewers are to be extended from combined sewers, the permittee shall demonstrate the ability of the combined sewer system (CSS) to convey, and the treatment plant to adequately treat, the increased dry-weather flows. Upon a determination by the Regional Water Engineer an assessment shall be made by the permittee of the effects of the increased flow of sanitary sewage or industrial waste on the strength of CSOs and their frequency of occurrence including the impacts upon best usage of the receiving water. This assessment should use techniques such as collection system and water quality modeling contained in the 2011 Water Environment Federation Manual of Practice FD-17 entitled, Prevention and Control of Sewer System Overflows, 3rd edition or other acceptable modeling method. Should such assessment not be feasible, a concurrent project that reduces infiltration and inflow (I/I) to the CSS tributary to the same downstream CSO regulator can be proposed. The I/I reduction shall be estimated by a professional engineer licensed in and by the State New York and shall be at least equal to the estimated increased peak hourly dry-weather flow or four (4) times the average daily dry-weather flow, whichever is greater.

10. Sewage Backups – If instances of discharges of raw sewage onto the ground surface from surcharging manholes or pump stations, the permittee should consider if modifications to the WWOP from BMP No. 6 are necessary. If there are documented, recurrent instances or raw sewage discharges, the permittee shall, upon letter notification from DEC, prohibit further connections that would exacerbate the surcharging/back-up problems.

11. Septage and Hauled Waste - The discharge or release of septage or hauled waste upstream of a CSO is prohibited.

12. Control of Runoff – Not applicable.

13. Public Notification – The permittee shall report, in accordance with 6 NYCRR Part 750-2.7, all known or suspected discharge events that occur not in accordance with requirements of BMP No. 4 or No. 5, including bypasses of treatment unit(s).

14. Characterization and Monitoring - The permittee shall collaborate with tributary communities to characterize the combined sewer system, determine the frequency of overflows, and identify CSO impacts in accordance with Combined Sewer Overflows, Guidance for Nine Minimum Controls, EPA, 1995, Chapter 10. These are minimum requirements, more extensive characterization and monitoring efforts which may be required as part of future revision of the Long-Term Control Plan.

15. Annual Report - The permittee shall electronically submit the Combined Sewer Overflows (CSO) Annual Report using nForm (https://www.dec.ny.gov/chemical/48595.html), which summarizes the implementation of the above BMPs and the CSO Long-Term Control Plan. The CSO Annual Report shall be submitted by January 31st of each year to the Regional Water Engineer and to the Bureau of Water Permits. The complete documentation shall be stored at a central location and be made available to DEC upon request.

SPECIAL CONDITIONS: CSO CONTROL POLICY

A. Water Quality Requirements for Combined Sewer Overflows

Long-Term Control Plan

In 2007, six Capital Region communities known as the "Albany Pool Communities"— the cities of Albany (NY0025747), Troy (NY0099309), Rensselaer (NY0026026), Cohoes (NY0031046), and Watervliet (NY0030899), and the Village of Green Island (NY0033031) – came together to develop a regional approach to CSO controls. The Albany County Water Purification District (ACWPD) North and South WWTPs (NY0026875 & NY0026867) and Rensselaer County Sewer District (RCSD) WWTP (NY0087971) assisted and supported the development of the long-term solution to address the CSO discharges from the Albany Pool Communities. The initial LTCP was submitted on June 30, 2011, but was disapproved by NYSDEC on December 12, 2012. Subsequently, on January 15, 2014, the Department, the Albany Pool Communities, the ACWPD and RCSD, entered into an Order on Consent (CO4-20120911-01) that required submission of an approvable LTCP, in accordance with the Guidance for Long-Term Control Plan, EPA, September 1995 and implementation of the LTCP following approval. A Supplemental Document to the initial LTCP was submitted in October 2013. The 2011 LTCP and October 2013 Supplement were approved together as the LTCP by letter by NYSDEC on January 15, 2014 in conjunction with the execution of the Order on Consent (CO4-20120911-01).

The RCSD WWTP accepts, through an interceptor sewer, combined sanitary wastewater and stormwater from City of Rensselaer and City of Troy.

Implementation of the LTCP is ongoing and the implementation schedule is regulated under the Order on Consent listed above. The permittee shall continue to effectively operate and maintain its CSO controls implemented in the long-term control plan. Post-Construction Compliance Monitoring (PCCM) is also regulated under the Order on Consent, however, is a responsibility of the Albany Pool Communities and not a responsibility of RCSD. In accordance with the approved LTCP, Albany Pool Communities, ACWPD, and RCSD are required to:

- Maximize flow of combined sewage from the Albany Pool Communities to the ACWPD and RCSD WWTPs, pump station upgrades, sewer system improvements, and disinfection systems at the WWTPs.
- Building and operate a satellite treatment facility to disinfect CSO flow and control of sewage-related floatables at the larges CSO in the City of Albany system.
- Implement multiple projects to separate combined sewers and eliminate some existing CSOs.
- Adding facilities to control the discharge of floatable waste at major CSO outfalls in the City of Cohoes and at the Corning Preserve in the City of Albany.
- Implement a long-term Green Infrastructure (GI) strategy to further reduce CSO releases above the 85% capture and treatment level.

Water Quality Criterion – Demonstration Approach

The Albany Pool Communities shall not discharge any pollutant at a level that causes an in-stream excursion of the applicable water quality requirements. The EPA 1994 CSO Control Policy indicates that a CSO control plan that meets the criteria below would provide an adequate level on control to meet the water quality requirements of the CWA. Following implementation of the approved LTCP, the following criteria shall be an enforceable performance metric under this permit.

- The Albany Pool Communities' approved LTCP has demonstrated that the selected control program will be adequate to meet the water quality-based requirements of the CWA.

B. Special Conditions

1. Reopener
   This permit may be modified or revoked and reissued, as provided pursuant to 6 NYCRR 750-1.18, 6 NYCRR 750-1.20, 40 CFR 122.62 and 124.5, for the following reasons:

   I. To include new or revised conditions developed to comply with any state of federal law or regulation that addresses CSOs that are adopted or promulgated subsequent to the effective date of this permit.
   II. To include new or revised conditions if new information, not available at the time of permit issuance, indicates that CSO controls imposed under the permit have failed to ensure the attainment of applicable water quality requirements.

STORMWATER POLLUTION PREVENTION REQUIREMENTS

Stormwater discharges at this facility are required to obtain coverage under the current Multi-Sector General Permit (MSGP) Sector [T] (GP-0-23-001).

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/or 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 permit includes reduced monitoring requirements and does not require key location sampling. See section 2.a.iv below.
      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 Department prior to acceptance.
      iv. 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 quarterly, in lieu of monitoring within the collection system, such as at *key locations*; and
            b) Conduct effluent compliance sampling quarterly.
         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.
      v. Additional monitoring must be completed as required elsewhere in this permit (e.g., locations tributary to compliance points).

[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.

MERCURY MINIMIZATION PROGRAM (MMP) - Type I (Continued)

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 the Department representatives and copies shall be provided upon request.
         b) 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;

[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

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 Department identifies inadequacies in the MMP.

   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.

INDUSTRIAL PRETREATMENT PROGRAM IMPLEMENTATION REQUIREMENTS

A. DEFINITIONS: Generally, terms used in this Section shall be defined as in the General Pretreatment Regulations (40 CFR Part 403). Specifically, the following definitions apply to terms used in this Section:

1. Categorical Industrial User (CIU): an industrial user of the POTW that is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N;

2. Local Limits: General Prohibitions, specific prohibitions and specific limits as set forth in 40 CFR 403.5.

3. The Publicly Owned Treatment Works (POTW): as defined by 40 CFR 403.3(q) and that discharges in accordance with this permit.

4. Program Submission(s): requests for approval or modification of the POTW Pretreatment Program submitted in accordance with 40 CFR 403.11 or 403.18 and approved by USEPA on 9/20/1985.

5. Significant Industrial User (SIU):
   a) CIUs;
   b) Except as provided in 40 CFR 403.3(v)(3), any other industrial user that discharges an average of 25,000 gallons per day or more of process wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater) to the POTW;
   c) Except as provided in 40 CFR 403.3(v)(3), any other industrial user that contributes a process waste stream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant;
   d) Any other industrial user that the permittee designates as having a reasonable potential for adversely affecting the POTW's operation or for violating a pretreatment standard or requirement.

6. Substances of Concern: Substances identified by the New York State Department of Environmental Conservation Industrial Chemical Survey as substances of concern.

B. IMPLEMENTATION: The permittee shall implement a POTW Pretreatment Program in accordance 40 CFR Part 403 and as set forth in the permittee's approved Program Submission(s). Modifications to this program shall be made in accordance with 40 CFR 403.18. Specific program requirements are as follows:

1. Industrial Survey: To maintain an updated inventory of industrial dischargers to the POTW the permittee shall:
   a) Identify, locate and list all industrial users who might be subject to the industrial pretreatment program from the pretreatment program submission and any other necessary, appropriate and available sources. This identification and location list will be updated, at a minimum, every five years. As part of this update the permittee shall collect a current and complete New York State Industrial Chemical Survey form (or equivalent) from each SIU.
   b) Identify the character and volume of pollutants contributed to the POTW by each industrial user identified in B.1.a above that is classified as a SIU.
   c) Identify, locate and list, from the pretreatment program submission and any other necessary, appropriate and available sources, all SIUs of the POTW.

2. Control Mechanisms: To provide adequate notice to and control of industrial users of the POTW the permittee shall:
   a) Inform by certified letter, hand delivery courier, overnight mail, or other means which will provide written acknowledgment of delivery, all industrial users identified in B.1.a. above of applicable pretreatment standards and requirements including the requirement to comply with the local sewer use law, regulation or ordinance and any applicable requirements under section 204(b) and 405 of the Federal Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.

INDUSTRIAL PRETREATMENT PROGRAM IMPLEMENTATION REQUIREMENTS (continued)

b) Control through permit or similar means the contribution to the POTW by each SIU to ensure compliance with applicable pretreatment standards and requirements. Permits shall contain limitations, sampling frequency and type, reporting and self-monitoring requirements as described below, requirements that limitations and conditions be complied with by established deadlines, an expiration date not later than five years from the date of permit issuance, a statement of applicable civil and criminal penalties and the requirement to comply with Local Limits and any other requirements in accordance with 40 CFR 403.8(f)(1).

3. Monitoring and Inspection: To provide adequate, ongoing characterization of non-domestic users of the POTW, the permittee shall:
   a) Receive and analyze self-monitoring reports and other notices. The permittee shall require all SIUs to submit self-monitoring reports at least every six months unless the permittee collects all such information required for the report, including flow data.
   b) The permittee shall adequately inspect each SIU at a minimum frequency of once per year.
   c) The permittee shall collect and analyze samples from each SIU for all priority pollutants that can reasonably be expected to be detectable at levels greater than the levels found in domestic sewage at a minimum frequency of once per year.
   d) Require, through permits, each SIU to collect at least one 24 hour, flow proportioned composite (where feasible) effluent sample every six months and analyze each of those samples for all priority pollutants that can reasonably be expected to be detectable in that discharge at levels greater than the levels found in domestic sewage. The permittee may perform the aforementioned monitoring in lieu of the SIU except that the permittee must also perform the compliance monitoring described in 3.c.

4. Enforcement: To assure adequate, equitable enforcement of the industrial pretreatment program the permittee shall:
   a) Investigate instances of noncompliance with pretreatment standards and requirements, as indicated in self-monitoring reports and notices or indicated by analysis, inspection and surveillance activities. Sample taking and analysis and the collection of other information shall be performed with sufficient care to produce evidence admissible in enforcement proceedings or in judicial actions. Enforcement activities shall be conducted in accordance with the permittee's Enforcement Response Plan developed and approved in accordance with 40 CFR Part 403.
   b) Enforce compliance with all national pretreatment standards and requirements in 40 CFR Parts 406 - 471.
   c) Provide public notification of significant non-compliance as required by 40 CFR 403.8(f)(2)(viii).
   d) Pursuant to 40 CFR 403.5(e), when either the Department or the USEPA determines any source contributes pollutants to the POTW in violation of Pretreatment Standards or Requirements the Department or the USEPA shall notify the permittee. Failure by the permittee to commence an appropriate investigation and subsequent enforcement action within 30 days of this notification may result in appropriate enforcement action against the source and permittee.

5. Recordkeeping: The permittee shall maintain and update, as necessary, records identifying the nature, character, and volume of pollutants contributed by SIUs. Records shall be maintained in accordance with 6 NYCRR 750-2.5(c).

6. Staffing: The permittee shall maintain minimum staffing positions committed to implementation of the Industrial Pretreatment Program in accordance with the approved pretreatment program.

C. SLUDGE DISPOSAL PLAN. The permittee shall notify NYSDEC, and USEPA as long as USEPA remains the approval authority, 60 days prior to any major proposed change in the sludge disposal plan. NYSDEC may require additional pretreatment measures or controls to prevent or abate an interference incident relating to sludge use or disposal.

INDUSTRIAL PRETREATMENT PROGRAM IMPLEMENTATION REQUIREMENTS (continued)

D. REPORTING: The permittee shall provide to the offices listed on the Monitoring, Reporting and Recording page of this permit and to the Chief-Water Compliance Branch, USEPA Region II, 290 Broadway, New York, NY 10007, a periodic report that briefly describes the permittee's program activities over the previous year. This report shall be submitted in accordance with the Schedule of Submittals to the above noted offices within 60 days of the end of the reporting period. The periodic report shall include:

1. Industrial Survey: Updated industrial survey information in accordance with 40 CFR 403.12(i)(1) (including any NYS Industrial Chemical Survey forms updated during the reporting period).

2. Implementation Status: Status of Program Implementation, to include:
   a) Any interference, upset or permit violations experienced at the POTW directly attributable to industrial users.
   b) Listing of SIUs issued permits.
   c) Listing of SIUs inspected and/or monitored during the previous reporting period and summary of results.
   d) Listing of SIUs notified of promulgated pretreatment standards or applicable local standards who are on compliance schedules. The listing should include for each facility the final date of compliance.
   e) Summary of POTW monitoring results not already submitted on Discharge Monitoring Reports and toxic loadings from SIU's organized by parameter.
   f) A summary of additions or deletions to the list of SIUs, with a brief explanation for each deletion.

3. Enforcement Status: Status of enforcement activities to include:
   a) Listing of SIUs in significant non-compliance (as defined by 40 CFR 403.8(f)(2)(viii) with federal or local pretreatment standards at end of the reporting period.
   b) Summary of enforcement activities taken against non-complying SIUs. The permittee shall provide a copy of the public notice of significant violators as specified in 40 CFR 403.8(f)(2)(viii).

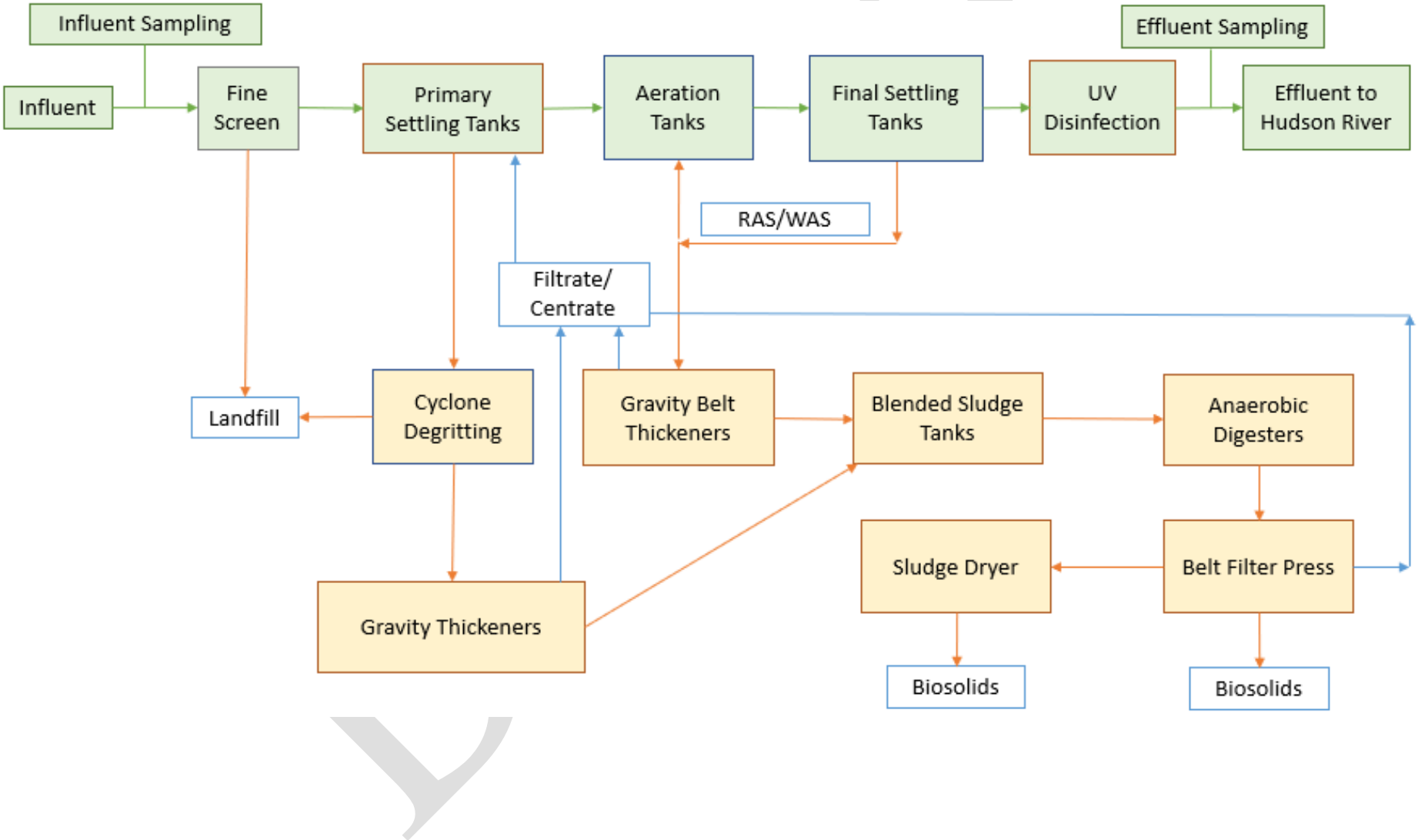
E. ADDITIONAL PRETREATMENT CONDITIONS:
1. Notification of Material Change: Facility shall notify the NYSDEC prior to the addition of any SIUs or CIUs which may materially change the nature of the discharge from the POTW or increase the discharge of one or more substances authorized in this permit or discharge a substance not currently authorized in this permit (6 NYCRR Part 750-2.9(a)(1)). The noticed act is prohibited until the Department determines whether a permit modification is necessary pursuant to 750-2.9(a)(2).

MONITORING LOCATIONS - CURRENT

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

Influent: Influent Sampling

Effluent: Effluent Sampling

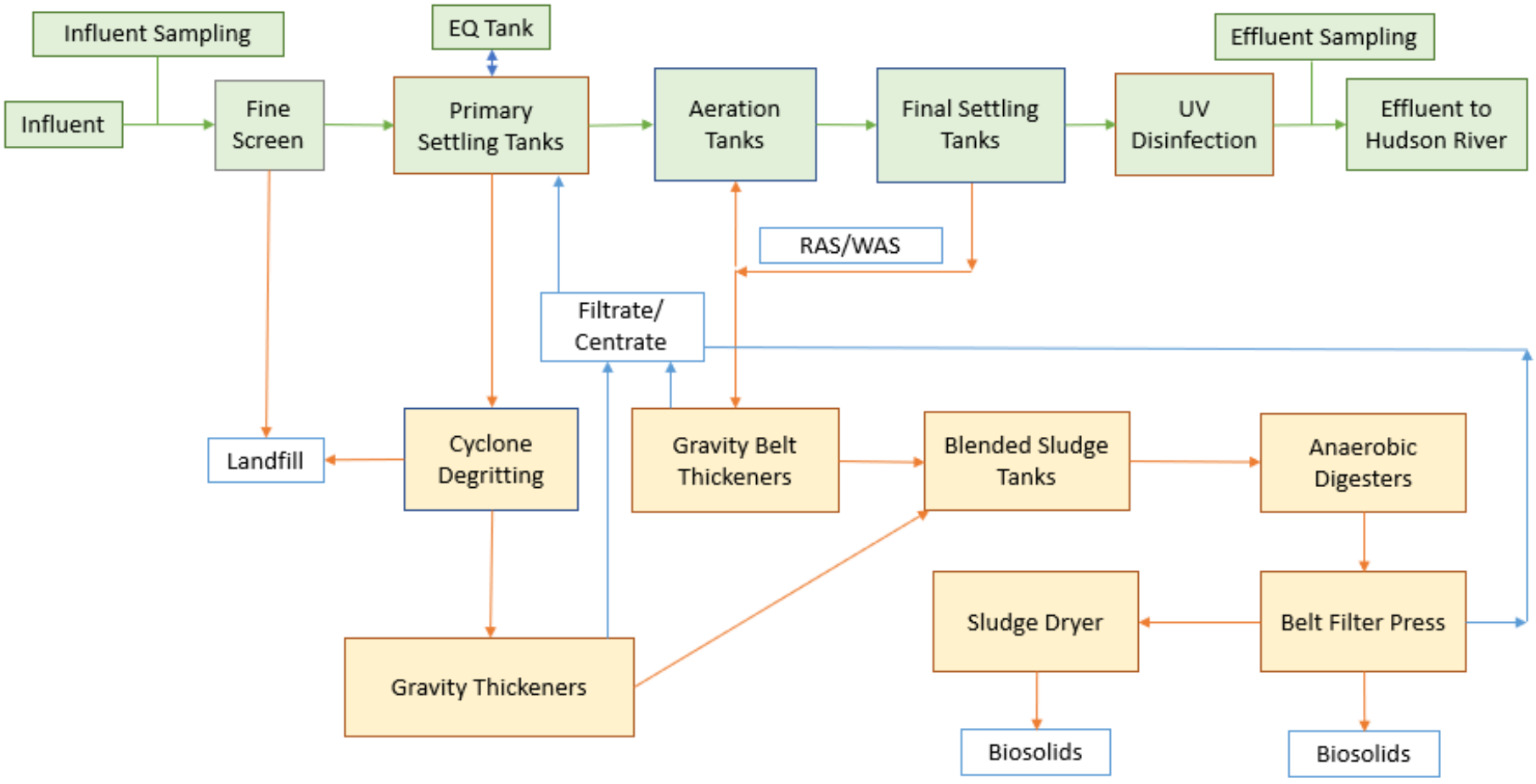


MONITORING LOCATIONS - FUTURE

Effective 01/01/2026 - The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the locations(s) specified below:

Influent: Influent Sampling

Effluent: Effluent Sampling



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.

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 (1) 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/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. A summary of the bypassed flows at the WWTP, including volume and frequency and related rainfall volumes in the service area, shall also be attached to each DMR.

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 4 Email: DOW.R4@dec.ny.gov
1130 North Westcott Road, Schenectady, New York, 12306-2014 Phone: (518) 357-2045

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

SCHEDULE OF ADDITIONAL SUBMITTALS		
Outfall(s)	**Required Action**	**Due Date**
001	BIENNIAL POLLUTANT SCAN The permittee shall implement an ongoing monitoring program and perform effluent sampling every two years as specified in footnote of 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	WET WEATHER OPERATION PLAN (WWOP) The permittee shall submit an updated Wet Weather Operation Plan (WWOP). The WWOP shall outline the optimum operational procedures to transition from dry weather operation mode to wet weather operation mode, and back to dry weather operation mode. These procedures shall be used to optimize the treatment of the maximum volume of wet weather flows possible at the treatment plant during wet weather events and meeting the effluent limitations in this permit.	In Accordance with Consent Order CO4-20120911-01
001	COMBINED SEWER OVERFLOW (CSO) ANNUAL REPORT The permittee shall submit a Combined Sewer Overflows (CSO) Annual Report, which summarizes the implementation of BMPs and the Long-Term Control Plan (if applicable) via nForm (https://www.dec.ny.gov/pubs/95925.html). Additional information regarding CSO Annual Report is available on-line at https://www.dec.ny.gov/chemical/48595.html.	January 31st Each Year
001	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
001	PRETREATMENT PROGRAM Submit a report that briefly describes the permittee's program activities over the previous year. The report shall follow the guidelines contained in this permit and be submitted to the Regional Water Engineer and the Bureau of Water permits as well as the USEPA Region II office.	November 29 Each Year (Within 60 days following the end of each reporting period)

SCHEDULE OF ADDITIONAL SUBMITTALS		
Outfall(s)	**Required Action**	**Due Date**
001	EMERGING CONTAMINANT SHORT-TERM MONITORING PROGRAM The permittee shall collect grab samples of both the influent and effluent from the facility's treatment system(s) associated with the identified outfall for Per-and Polyfluoroalkyl Substances (PFAS) and 1,4-Dioxane (1,4-D), unless permittee receives written notification from the Department during this time that sampling can be discontinued. Samples must be analyzed utilizing EPA draft analytical method 1633 and EPA Method 8270D SIM or 8270E SIM, respectively. The samples must represent normal discharge conditions and treatment operations and shall be obtained on a quarterly basis for at least 4 consecutive quarters, unless written notification from the Department indicates otherwise. The results shall be reported through the "Emerging Contaminants Survey for POTWs" found at: https://www.dec.ny.gov/chemical/127939.html.	EDP + 18 months
	The permittee shall initiate track down of potential sources by completing the "Emerging Contaminants Investigation Checklist for POTWs" available at the above link. The Department may periodically request updates and/or additional monitoring to check progress on track down investigations. Elements of the checklist may be used as permit conditions in future permit modifications.	Within 90 days of DEC written notification

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 Rensselaer County Sewer District #1 Rensselaer County Sewer District #1 WWTP NY0087971

NEW YORK STATE | Department of Environmental Conservation

Contents

Summary of Permit Changes

A State Pollutant Discharge Elimination System (SPDES) EBPS permit renewal has been drafted for the Rensselaer County Sewer District #1 WWTP. The changes to the permit are summarized below:

- Updated permit format, definitions, and general conditions
- Added daily maximum monitoring requirement for flow
- Increased the temperature and pH sampling frequency from 3/day to 6/day
- Reduced the 5-day carbonaceous biochemical oxygen demand ($CBOD_5$) and total suspended solids (TSS) sampling frequency from 1/day to 3/week
- Removed winter monitoring requirement for Total Kjeldahl Nitrogen (TKN) (November to May)
- Added new mercury daily maximum limit of 50 ng/L (Quarterly)
- Added new mercury 12 month rolling average limit of 12 ng/L (Quarterly)
- Added daily maximum concentration reporting requirement for Lead, Copper, and Zinc.
- Reduced the Lead sampling frequency from monthly to quarterly
- Removed action level monitoring requirement for Arsenic, Copper and Phenolics.
- Added new Biennial Pollutant Scan
- Reduced the WET action levels from 24 TUa and 92 TUc to 12 and 78 for acute and chronic, respectively
- Updated combined sewer overflow (CSO) BMP, CSO Control Policy Requirement sections
- Updated Mercury Minimization Program Requirements
- Added a short-term monitoring requirement for Emerging Contaminants

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

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 12/31/2014. The 2009 permit, along with all subsequent modifications, has formed the basis of this permit.

3/1/2010 Permit was modified to include requirements to report and abate illegal dry weather overflows.

10/30/2014 The permit was administratively renewed. Per DEC and EPA agreement, DEC no longer administratively renews EPA Major permits.

3/1/2019 The current permit was extended pursuant to SAPA[1], after receipt of the timely filed renewal application 01/18/2019.

[1] State Administrative Procedures Act Section 401(2) and 6 NYCRR 621.11(*l*)

5/5/2023 Department 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 205 and ranking of 99.

8/4/2023 The Rensselaer County Sewer District #1 submitted a NY-2A permit application.

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

Facility Information

This facility is a publicly owned treatment works that receives flow from domestic and industrial users, including waste from categorical industrial users, with effluent consisting of treated sanitary and process wastewater. The collection system consists of both separate and combined sewers. The facility accepts flow from six (6) significant industrial users (SIUs).

The facility accepts wastewater from the following municipalities:

Municipality	POSS # or SPDES #	Collection System
Rensselaer County Sewer District #1	NY0087971	Combined
City of Rensselaer	NY0026026	Combined
City of Troy	NY0099309	Combined
Pleasantdale Sewer District	NYS400008	Separate
Town of Brunswick Sanitary Sewers	NYS400010	Separate
Town of North Greenbush Sewer System	NYS400011	Separate
Rensselaer Co. Valley View Line	NYS400026	Separate
Sand Lake (T) POSS	NYS400027	Separate
Nassau, Town of: Sewer District No. 1	NYS400035	Separate

The facility accepts wastewater from the following significant industrial users (SIUs):

Significant Industrial User (SIU)	SIC Code	Categorical Reference (if applicable to 40 CFR)
Curia – New York	2833 2835	40 CFR Part 439
GE Healthcare	3844 3672	40 CFR Part 469 40 CFR Part 433
Regeneron Pharmaceuticals Inc	2836 2834	40 CFR Part 439
Amtrak Maintenance Facility	4011	-
Rensselaer Generating LLC (NY0242586)	4931	40 CFR Part 423
Empire Generating Company, LLC	-	NA - sanitary only

The current 24 MGD treatment plant consists of:

- Preliminary Treatment: Screening
- Primary Treatment: Primary Clarification
- Secondary Treatment: Aeration and Secondary Clarification

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

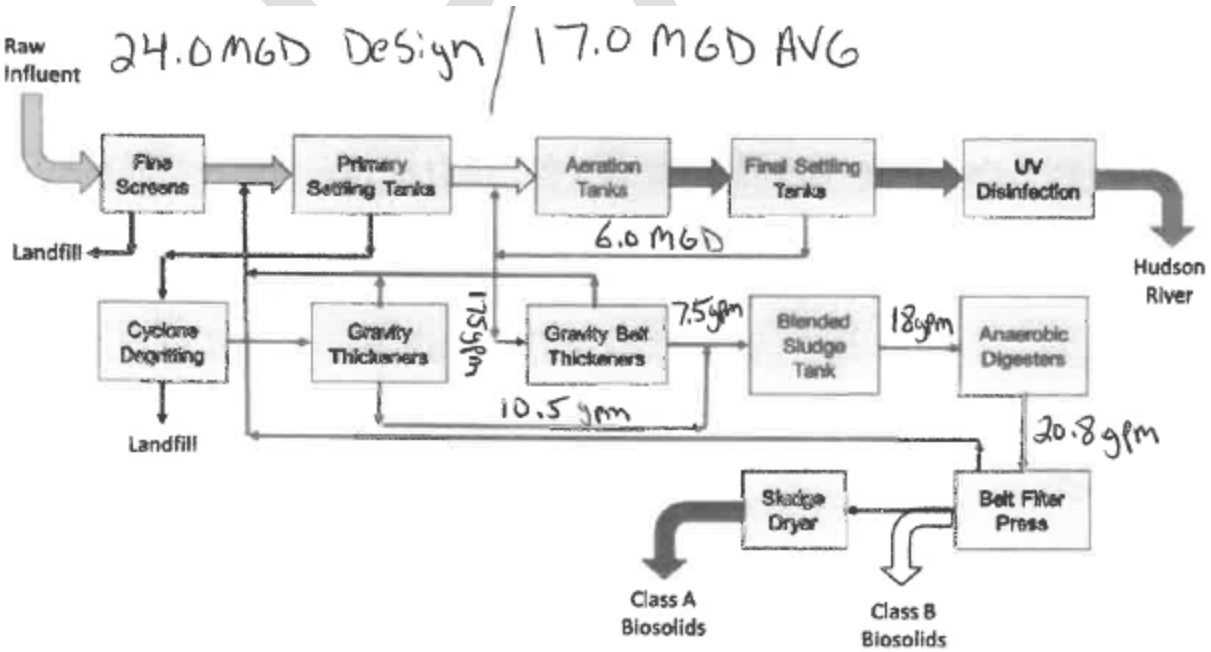
- Disinfection: UV

Sludge is digested anaerobically, pressed, and hauled to a landfill.

The outfall pipe (Outfall 001) extends approximately 80 feet into the Hudson River. The outfall pipe is 66 inch in diameter and has a 3 x 30" multi-port diffuser. The depth to the top of the outfall varies with the tide, and the average depth is 31 feet. The local depth at outfall's diffusers is 20.5 feet.

The facility is planning to replace mechanical aeration with diffused air in the aeration tanks. The projected completion date of the aeration improvement is 9/1/2024.

Site Overview



Additional Site-Specific Concerns

In 2007, six Capital Region communities known as the "Albany Pool Communities"— the cities of Albany (NY0025747), Troy (NY0099309), Rensselaer (NY0026026), Cohoes (NY0031046), and Watervliet (NY0030899), and the Village of Green Island (NY0033031) – came together to develop a regional approach to CSO controls. The Albany County Water Purification District (ACWPD) North and South WWTPs (NY0026875 & NY0026867) and Rensselaer County Sewer District (RCSD) WWTP (NY0087971) assisted and supported the development of the long-term solution to address the CSO discharges from the Albany Pool Communities.

The Albany Pool area originally had 92 CSO outfalls, reduced to 85 as of 2021. The regional LTCP addresses the CSOs discharging to the Hudson and Mohawk rivers and improves water quality in a way that is more cost-effective than if each municipality developed its own LTCP. These 6 communities, along with the county sewer districts, are implementing the 15-year plan, with most of the improvement realized in the first 10 years. More information regarding the Albany Pool LTCP can be found at https://www.albanypoolcso.org/.

The initial LTCP was submitted on June 30, 2011, but was disapproved by NYSDEC on December 12, 2012. Subsequently, on January 15, 2013, the Department, the Albany Pool Communities, the ACWPD and RCSD, entered into an Order on Consent (CO4-20120911-01) that required submission of an approvable LTCP, in accordance with the Guidance for Long-Term Control Plan, EPA, September 1995 and implementation of the LTCP following approval. A Supplemental Document to the initial LTCP was submitted in October 2013. The 2011 LTCP and October 2013 Supplement were approved together as the LTCP by letter by NYSDEC on January 15, 2014.

Enforcement History

The facility is operating under the Albany Pool Order on Consent (CO4-20120911-01) dated 1/15/2013. The Order requires the following compliance actions of the Albany Pool communities:

- Submit an approvable Long-Term Control Plan (LTCP),
- Implement, Construct, Maintain and Monitor facilities and projects in the approved LTCP.

The Order requires the following compliance actions of the RCSDspecifically:

- Fully cooperate in the development of the Albany Pool LTCP and provide information requested by the Albany Pool,
- Participate in the evaluation of all alternatives assessed by the Albany Pool LTCP, and
- Implement or construct any projects and complete such other functions as expressly required of them under the approved LTCP.

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

Existing Effluent Quality

The Pollutant Summary Table presents the existing effluent quality and effluent limitations. The existing effluent quality was determined from Discharge Monitoring Reports and the application submitted by the permittee for the period 1/1/2018 to 2/28/2023. Appendix Link

Receiving Water Information

The facility discharges via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	4952	Treated Sanitary Waste	Hudson River, Class C

Reach Description: Within 8 miles upstream of this outfall, there are several other SPDES permitted dischargers, including CSOs from Troy (NY0099309), Watervliet (NY0030899), Green Island (NY0033031), and Cohoes (NY0031046). Due to the significant size of the receiving water and the distance between this facility and the upstream continuous discharges, the upstream contributions were found to have negligible impact in the water quality model. The segment of Hudson River at the point of discharge is classified as C. The Hudson River water quality model runs for 0.75 miles and ends immediate upstream of Albany County North Plant's outfall.

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

Impaired Waterbody Information

The Hudson River segment (PWL No. 1301-0002) was first listed on the 1998 New York State Section 303(d) List of Impaired/TMDL Waters as impaired due to Polychlorinated Biphenyls (PCBs) from contaminated sediment. The segment continues to be listed as of the 2018 NYS Section 303(d) List, in Part 2b. A TMDL has not been developed to address the impairment and, therefore, there are no applicable wasteload allocations (WLAs) for this facility.

Critical Receiving Water Data & Mixing Zone

The low flow condition for the Hudson River was obtained from a drainage basin ratio analysis with USGS gage station 01358000, Hudson River at Green Island located approximately 5 miles upstream of the outfall. The 1Q10, 7Q10 and 30Q10 flows at the gage were found from the USGS SW Toolbox software and an analysis of data from 1946 to 2022.

RESULTS: USGS 01358000 HUDSON RIVER AT GREEN ISLAND NY

File Edit View Help

All available years of data are included in analysis. Display Options: 01358000

Season defined as Jan 1 - Dec 31. Biological flow is calculated for full climatic year starting at Jan 1.

Seasonal Calculation?	No		
Season Or Year Start	1-Jan		
Season Or Year End	31-Dec		
Years Included in Calculations	1946~2022		
Start	1946		
End	2022		
Flow Statistic	Flow Value	Percentile	x-day avg. Excur. per 3 yr.
1B3	1,707.1	0.10%	0.94737
4B3	2,655.5	1.11%	0.94737
30B3	3,859.4	5.87%	0.98684
Flow Statistic	Flow Value	Percentile	1-day Excur. per 3 yr.
1Q10	1,468	0.03%	0
7Q10	2,816.8	1.46%	1.0263
30Q10	3,314.8	3.11%	2.0132
Harmonic Mean	8,585	40.41%	N/A
Harmonic Mean, Adjusted	8,284.1	38.76%	N/A

DRAINAGE BASIN RATIO	1Q10	7Q10	30Q10	
Gage Name		Hudson River at Green Island		
Gage ID Number		"01358000"		
Low Flow at Gage (cfs)	1468	2817	3315	SW Toolbox 01358000
Drainage Area at Gage (mi^2)	8100	8100	8100	USGS Streamstats
Drainage Area at Facility (mi^2)	8250	8250	8250	USGS Streamstats
Drainage Basin Ratio (facility / gage)	1.0	1.0	1.0	
Calculated Flow at Facility (cfs)	1495.19	2869.17	3376.39	

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	41:1	78:1	92:1	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 based on the following criteria: Appendix Link

- Treatment plants which equal or exceed a discharge of 1MGD. (#7)

Consistent with TOGS 1.3.2, a reasonable potential analysis was performed using the existing WET data for this facility (see data below). It was determined that while the analysis indicated no potential for toxicity in the effluent, WET testing is required based on the criteria listed above and WET action levels are being updated in the permit. Given the dilution available and location outside of the Great Lakes basin, the permit requires acute and if necessary chronic WET testing. Samples will be collected quarterly during calendar years ending in 2 and 7. WET testing action levels of 12 TUa and 78 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.

Test Date	[1]MSS 48H LC50 (%Effluent)	[2]MSS TUa	[3]TUa Action Level	[4]MSS Survival 100% Effluent	[5]Acute Test Result	[6]MSS RPD TUa	[7]Acute WET Limit Required	[8]Predicted MSS TUc	[9]TUc Action Level	[10]Chronic Test Result	[11]MSS RPD TUc	[12]Chronic WET Limit Required
03/22	>100% (FI)	<0.3 (FI)	24.0	95% (I)	Pass	<0.8	No	<10.0 (FI)	92.0	Pass	<26.0	No
06/22	>100% (FI)	<0.3 (FI)	24.0	100% (FI)	Pass	<0.8	No	<10.0 (FI)	92.0	Pass	<26.0	No
09/22	>100% (FI)	<0.3 (FI)	24.0	95% (I)	Pass	<0.8	No	<10.0 (FI)	92.0	Pass	<26.0	No
11/22	>100% (FI)	<0.3 (FI)	24.0	100% (FI)	Pass	<0.8	No	<10.0 (FI)	92.0	Pass	<26.0	No

[1]Most Sensitive Species 48-hour Lethal Concentration: (F=Fish; I=Invertebrate) is the concentration or percentage of effluent that is lethal to 50% of the exposed organisms over a 48-hour period, and often indicates one species is more sensitive than the other during effluent testing.

[2]Most Sensitive Species Toxic Units Acute: is calculated as (100 / MSS 48H LC50). However, because ≤ 0.3 TUa is defined as the acceptable amount of Acute toxicity at the edge of the Acute mixing zone, and mathematically 100 / 100 = 1.0 (i.e. a failing result), non-toxic Acute test results are indicated as < 0.3.

[3]Toxic Unit Acute Action Level/Limit: is calculated as [Acute Dilution Factor x 0.3 TUa] representing the maximum allowable effluent TUa at the edge of the Acute mixing zone ensuring Acute protection of the receiving water. When the Acute Dilution Factor is < 3.3, the default Acute Action Level of 0.3 TUa is used representing the maximum allowable effluent TUa at the end of pipe.

[4]Most Sensitive Species Survival in 100% Effluent: is the lowest percentage of surviving organisms in 100% effluent, providing additional evidence of unacceptable Acute toxicity when the necessary 50% or greater mortality required to generate an LC50 has not been attained. *Denotes statistically significant mortality as compared to the control.

[5]Acute Test Result: MSS TUa ≤ TUa Action Level/Limit for passing effluent test result and MSS TUa > TUa Action Level/Limit for a failing effluent test result. If unacceptable mortality (i.e. statistically significant as compared to the control), this may also be considered a failing test result.

[6]Most Sensitive Species Reasonable Potential Determination Toxic Units Acute: is calculated as (MSS TUa x 2.6), the Reasonable Potential Multiplier when four quarterly tests have been completed, taking into account the statistical potential for effluent variability to occur causing an exceedance of the toxicity-based Action Level.

[7]Acute Whole Effluent Toxicity Limit Required: MSS RPD TUa ≤ TUa Action Level, then no toxicity-based Limit is required, and the Action Level remains in place. If MSS RPD TUa > TUa Action Level, then a toxicity-based Limit is required, and the Action Level becomes the Limit. **In low dilution situations, the application of the RPD to the Acute results often mathematically suggests the need for Acute WET Limits even when there is no toxicity evident in 100% effluent (i.e. a non-detect). Therefore, this data cannot be used to implement a WET Limit.

[8]Predicted Most Sensitive Species Toxic Units Chronic: is calculated as (MSS TUa x 10) the default Acute:Chronic ratio used to predict Chronic toxicity from Acute test results in the absence of Chronic testing. When MSS TUa is < 0.3, < 1.0 should be used for the calculation since this is defined as the

acceptable amount of Chronic toxicity at the edge of the Chronic mixing zone. In Class A/SA, B/SB, C/SC, and I waters, we must ultimately protect for Chronic toxicity.

[9]Toxic Unit Chronic Action Level/Limit: is calculated as [Chronic Dilution Factor x 1.0 TUc] representing the maximum allowable effluent TUc at the edge of the Chronic mixing zone ensuring Chronic protection of the receiving water.

[10]Chronic Test Result: MSS TUc $\underline{<}$ TUc Action Level/Limit for passing effluent test result and MSS TUc > TUc Action Level/Limit for a failing effluent test result.

[11]Most Sensitive Species Reasonable Potential Determination Toxic Units Chronic: is calculated as (MSS TUc x 2.6), the Reasonable Potential Multiplier when four quarterly tests have been completed, taking into account the statistical potential for effluent variability to occur causing an exceedance of the toxicity-based Action Level.

[12]Chronic Whole Effluent Toxicity Limit Required: MSS RPD TUc $\underline{<}$ TUc Action Level, then no toxicity-based Limit is required, and the Action Level remains in place. If MSS RPD TUc > TUc Action Level, then a toxicity-based Limit is required, and the Action Level becomes the Limit. ***In low dilution situations, the combined application of the default ACR and RPD to the Acute results often mathematically suggests the need for Chronic WET Limits even when there is no toxicity evident in 100% effluent (i.e. a non-detect). Therefore, this data cannot be used to implement a WET Limit.

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.

Requirements for Combined Sewer Overflows (CSOs)

Appendix Link

Best Management Practices (BMPs) for Combined Sewer Overflows (CSOs)

The BMPs for CSOs require the permittee to implement operation and maintenance procedures[4]; use the existing treatment plant and collection system to the maximum extent practicable; effect sewer design replacement and drainage planning; maximize pollutant capture; and minimize water quality impacts from combined sewer overflows. The submittal requirements are summarized in the Schedule of Additional Submittals. This requirement is being continued from the previous permit. The specific intentions and justifications for each BMP, with respect to applicability to the permittee, are below.

#1: CSS Maintenance & Inspection – The intent of this BMP is to ensure proper maintenance and inspection of the combined sewer system and associated structures. For all permittees that own or operate these appurtenances, routine inspections, repair, cleaning and maintenance must be performed. This BMP will continue to be applicable.

#2: Maximize Use of Collection System for Storage – The intent of this BMP is to ensure that the flows the POTW is required to treat during wet weather can be conveyed. Per TOGS 1.6.3, "systems with potential for significant collection system storage, consideration should be given to in-line storage technologies such as inflatable dams or sluice gates which can be controlled from the host POTW via telemetry." Given the permittee owns the regulators and interceptor immediately tributary to the WWTP, the permittee is responsible to ensure, in conjunction with the other BMPs, the minimum required capacity of the interceptor is available during wet weather events. Further, the permittee's ability to modulate influent flows to the WWTP and thereby lead to the commencement of CSO discharges, this BMP should be applicable. The operations of such a gate are to be included in the WWOP per BMP #4. This BMP is new.

[3] As prescribed by 6 NYCRR Part 617
[4] See 6 NYCRR 750-2.8(a)(2)

#3: Industrial Pretreatment – The intent of this BMP is to ensure that the Industrial Pretreatment Program (IPP) considers and evaluates industrial user discharges that are upstream of CSO outfalls. This BMP will continue to be applicable.

#4: Maximize Flow to POTW – The intent of this BMP is to maximize flow to the WWTP and maximize treatment of peak wet weather flows. This BMP sets forth the required wet weather flows through each treatment process and when bypasses of secondary treatment are acceptable. This BMP was part of the Wet Weather Operating Plan BMP, and it is now a standalone BMP.

#5: Wet Weather Operating Plan – This BMP requires the development of an approvable written operating plan that details the required operations of the WWTP prior to, during, and following wet weather events. The WWOP must be approved by NYSDEC and when the POTW is substantially replaced or modified, the WWOP must be revised and submitted for NYSDEC approval. This BMP is required for all WWTPs serving combined sewer systems. This BMP will continue to be applicable.

#6: Prohibition of Dry Weather Overflow – This BMP prohibits all discharges from combined sewers during dry weather, this includes activations of the secondary bypass at flows below the required flows specified in BMP #4. This also requires that all dry weather overflows must be promptly reported and abated in accordance with 6 NYCRR 750-2.7. This BMP will continue to be applicable.

#7: Control of Floatable & Settleable Solids – The intent of this BMP is to prevent aesthetic issues and other floating substances from being discharged during wet weather conditions. Since the permittee is allowed to operate a secondary treatment bypass, in accordance with BMP #4, the permittee's WWOP and continued operation of the bypass must minimize the discharge of these pollutants. This BMP is new.

#8: Combined Sewer System Replacement – This BMP requires that NYSDEC approves all replacements of existing combined sewers. Since the permittee-owned interceptor conveys combined sewage, it is considered a combined sewer and therefore this BMP must apply. This BMP is new.

#9: Combined Sewer/Extension – The permittee jointly reviews and approves sewer extensions with the POSSs contributing flow to the POTW and therefore must consider the impact these extensions may/will have on the contribution to CSO discharges. This BMP also includes a component specifically related to approval of extensions being subject to an evaluation of the treatability of the increased dry-weather flows to the WWTP. Therefore, this BMP must be included. This BMP is new.

#10: Sewage Backups – This BMP is required to indicate the NYSDEC's ability to prohibit further connection to the POTW system which may exacerbate sewer backups (SBUs) and surcharging in the system. While these SBUs and surcharges may not occur within the permittee-owned system, the permittee would still be subject to such a moratorium as the WWTP holds the final regulating gate for influent flows. This BMP ensures that operation of the throttling gate, in accordance with the WWOP in BMP #4, interceptor maintenance in accordance with BMP #1, nor maximizing storage in the collection system in accordance with BMP #2 does not cause or contribute to SBUs or surcharge problems in the collection system. Per existing inter-municipal agreements (IMAs), the permittee maintains authority over the POSSs, to accept or deny the conveyance of wastewater. This BMP is new.

#11: Septage and Hauled Waste – This BMP is a prohibition of the discharge of septage or hauled waste upstream of a CSO outfall. While septage is currently only received at the

North WWTP, this BMP is required as a general prohibition that shall always apply to combined sewer systems and associated WWTPs to ensure that septage will be treated by the WWTP. This BMP will continue to be applicable.

#12: Control of Runoff – This BMP is to prevent additional contamination in runoff to the combined sewer system, including the interceptor, by requiring compliance with Erosion and Sediment Control requirements of the Stormwater design manual for development areas in the combined sewer shed. This BMP will continue to be not applicable.

#13: Public Notification – This BMP requires outfall signage in accordance with the Discharge Notification Act and reporting of CSO discharges and non-compliance events (operation of the WWTP inconsistent with the WWOP), in accordance with Part 750. This BMP is new.

#14: Characterization & Monitoring – This BMP is intended for the development of the LTCP and any future revision of the LTCP required. Since the permittee is required to cooperate with development and implementation of the LTCP, this condition must be included. This BMP is new.

#15: Annual Report – This BMP requires submission of an annual report and is required for all permittees associated with combined sewer systems and CSOs. Further, the permittee is required to submit a data summary of the bypass flows at the WWTP, including volume and frequency. This BMP will continue to be applicable.

Long-Term Control Plan (LTCP)

The permittee does not own or operate any CSOs in the collection system. CSOs are owned and operated by each of the Albany Pool communities. As described above, Albany Pool CSO discharges are being addressed under the LTCP approved by the Department on 1/15/2014. LTCP requirements are required under Order on Consent CO4-20120911-01.

Post-Construction Compliance Monitoring (PCCM)

PCCM is required by all CSO permittees to verify compliance with the EPA National CSO Control policy and evaluate attainment of NYS water quality standards. A PCCM plan was approved in 2015 for the Albany Pool Communities. Baseline PCCM sampling was conducted from 2015-2017. PCCM requirements are not included in this SPDES permit as the Albany Pool Communities are responsible for PCCM, as required under Order on Consent CO4-20120911-01.

Stormwater Pollution Prevention Requirements

The facility is a publicly owned treatment works ≥ 1 MGD that requires SPDES permit coverage under 40 CFR 122.26 (b)(14)(ix). The permittee is required to continue to seek coverage of their stormwater outfalls separately under the SPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP) Sector [T] (GP-0-23-001). The MSGP permit identification number for this facility is NYR00D501.

Mercury[5]

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

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

The facility is an EPA Major, Class 05 POTW and the permit includes requirements for the implementation of MMP Type I. These requirements are new to the permit. The permittee has been collecting quarterly low-level mercury samples of the WWTP effluent since 2018. While this permit has not previously included any MMP requirements, the permittee began effluent sampling after negotiating with each of the Albany Pool communities to implement the MMP required by each community's SPDES permit.

The facility has 12 effluent mercury data points and the existing effluent quality (EEQ) of 5.7 ng/L was calculated from the lognormal 95th percentile of 12 mercury effluent samples collected from May 2018 to July 2023. The draft permit includes a new daily maximum total mercury effluent limitation of 50 ng/L. The facility is located outside the Great Lakes Basin and the EEQ ≤12 ng/L; therefore, the permit includes a 12-month rolling average total mercury effluent limitation equal to 12 ng/L. 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)

As the EEQ is ≤12 ng/L, the permittee qualifies for the MMP "decreased monitoring requirements." Thus, the sampling frequency in the permit will be quarterly. The permit language reflects additional reductions in the MMP requirements.

Biennial Pollutant Scan

Three effluent samples for applicable parameters must be submitted with an NY-2A Application[6]. 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.

Industrial Pretreatment Program

The permittee is required to continue implementation of a USEPA-approved pretreatment program in accordance with 40 CFR Part 403 and TOGS 1.3.3. The program specifies continued implementation of an industrial user compliance program, submission of user information, modification of local sewer use law (if necessary), and periodic reporting.

Emerging Contaminant Monitoring

Emerging Contaminants, such as Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonic acid (PFOS), and 1,4-Dioxane (1,4-D), have been used in a wide variety of consumer and industrial product as well as in manufacturing processes for decades. These contaminants do not break down easily, therefore their presence in wastewater can remain a concern for years following their discontinued use. As the science surrounding these contaminants is still evolving, additional monitoring is needed to better understand potential sources and background levels. For more information on emerging contaminants, please see the NYSDEC Division of Water web page: https://www.dec.ny.gov/chemical/127939.html.

Pursuant to 6 NYCRR Part 750-1.13(b), the permit includes a short-term monitoring program listed in the Schedule of Additional Submittals to evaluate the influent and effluent discharge levels of Per-and Polyfluoroalkyl Substances (PFAS) and 1,4-Dioxane. This monitoring program

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

is consistent with PFAS guidance released in EPA guidance memos dated April 28, 2022, and December 5, 2022.

The Department will review the monitoring results and pursuant to 6 NYCRR 750-2.1(i) may notify the permittee of the need for further monitoring to identify potential sources as specified in the Emerging Contaminants Investigation Checklist for POTWs to determine whether cause exists to modify the permit to incorporate a pollutant minimization program per 6 NYCRR 750-1.14(f).

The Department will consider this information and progress made to track down and reduce or eliminate the source of the identified pollutants in determining if a permit modification is needed.

Schedule(s) of Additional Submittals

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

- Submit Water Treatment Chemical Annual Report
- Submit Annual Flow Certification
- Conduct Biennial Pollutant Scan
- Submit Whole Effluent Toxicity Testing Report
- Update Wet Weather Operations Plan
- Submit Combined Sewer Overflow Annual Report
- Submit Combined Sewer Overflow Bypass Summary
- Maintain Mercury Minimization Status Report
- Submit Pretreatment Program Report
- Report Emerging Contaminant Short-Term Monitoring Result

Evaluation of Permittee-Requested Modification

On August 31, 2023, following submission of the SPDES Application Form NY-2A, the permittee submitted an email request for performance-based reductions of SPDES permit monitoring frequencies for permitted parameters.

The USEPA's April 1996 *Interim Guidance for Performance-based Reductions of NPDES Permit Monitoring Frequencies* (also cited in TOGS 1.3.3) specifies eligibility criteria that considers several factors including the facility's compliance history, parameter-by-parameter compliance history, parameter-by-parameter performance history. Once eligibility is determined, the guidance details procedures for determining reduced sampling frequencies of monthly average effluent limitations, utilizing performance data and the ratio of the long-term average (LTA) to the permit limitation.

It should be noted that the referenced guidance does not apply for daily maximum effluent limitations, therefore only CBOD and TSS were evaluated. As stated in the referenced guidance, the reduced frequencies recommended in the reference guidance are not guaranteed nor is the permitting authority required to grant such reductions. Further, reduced frequencies may be revoked should the permitting authority determine such frequencies are inadequate or if the facility no longer satisfies the eligibility criteria.

The Department has determined that the facility is eligible for consideration based on the compliance history requirements specified in the referenced guidance. Thus, the Department has evaluated the request for CBOD and TSS. The LTAs (1/1/2018 through 2/28/2023) were calculated for both reported monthly average concentrations and loads. The Department determined a maximum LTA/Permit limitation ratio of 13.2% for CBOD and 16.3% for TSS.

Therefore, the sampling frequency reduction for CBOD and TSS from 1/day to 3/week has been included in the draft permit.

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	42° 40' 52" N	73° 43' 0" W	Hudson River	C	H (Portion 5) PWL: 1301-0002	13 / 01	81[7]	966	1854	2182	24	41:1	78:1	92:1

POLLUTANT SUMMARY TABLE

Outfall 001

Outfall #	001	**Description of Wastewater:** Treated Sanitary Wastewater													
		Type of Treatment: Fine screens, primary settling tanks, aeration tanks, secondary settling and UV disinfection													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[8]	# 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 1/1/2018 to 2/28/2023 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	24	17 Actual Average	62 / 0	**24**	Design Flow	Narrative: No alterations that will impair the waters for their best usages.					703.2	-	TBEL
	Consistent with 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 reporting is added for informational purposes and to calculate pollutant loadings.														
pH	SU	Minimum	6	6.0 Min	62 / 0	**6.0**	TOGS 1.3.3	7.6[9]	-	6.5 – 8.5	Range	Select	703.3	-	TBEL
		Maximum	9	8.7 max	62 / 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. The monitoring frequency is increased from 3/day to 6/day, in accordance with 10/25/73 DEC-EPA Agreement (TOGS 1.3.3).														

[7] Ambient hardness data obtained from the average Hardness (as CaCO3) of the 13 data points on record from ambient RIBS data station 13-LHUD-125.8, for the period of 2017-2020.
[8] 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)
[9] Ambient pH obtained from the average pH of the 22 data points on record from ambient RIBS station 13-LHUD-133.4, for the period of 1997-2017.

Outfall #	001	**Description of Wastewater:** Treated Sanitary Wastewater
		Type of Treatment: Fine screens, primary settling tanks, aeration tanks, secondary settling and UV disinfection

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[8]	# 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		
Temperature	°F	Daily Max	Monitor	77 max	62 / 0	**Monitor**	750-1.13 Monitor	-	Narrative (Non-Trout): The water temperature at the surface of a stream shall not be raised to more than 90F at any point and... shall not be raised or lowered to more than 5F over the temperature that existed before the addition				704.2	-	TBEL
	Consistent with 6 NYCRR 750-1.13(a), monitoring is required and may be used to inform future permitting decisions. This requirement is continued from the previous permit. The monitoring frequency is increased from 3/day to 6/day, in accordance with 10/25/73 DEC-EPA Agreement (TOGS 1.3.3).														
Dissolved Oxygen (DO)	mg/L	Daily Min	Not Currently Required			-	-	7.5	7.0 Critical Point	(Non-Trout) 4.0 mg/L	Narrative	No Reasonable Potential	703.3	-	No Limitation
	The downstream DO concentration was modeled using the Streeter-Phelps equations and the following assumptions: Effluent DO = 2 mg/l (assumed value consistent with TOGS 1.3.1D), Effluent UOD = 132 mg/L (Effluent BOD_5 = 45 mg/L (existing permit limit), Effluent NOD = 73 mg/L (estimated from TKN limit of 16 mg/L)), and upstream temperature of 25 ºC. Reach Description: The model runs for 0.75 miles and ends immediate upstream of Albany County North Plant's outfall. The model showed that DO standards are maintained and consequently WQBELs for UOD are unnecessary and the TBELs are protective of water quality.														
5-day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)	mg/L	Monthly Avg	25	3.7	62 / 0	**25**	TOGS 1.3.3	-	See Dissolved Oxygen			No Reasonable Potential	703.3	-	TBEL
		7 Day Avg	40	7.7	62 / 0	**40**	TOGS 1.3.3								
	lbs/d	Monthly Avg	5000	580	62 / 0	**5000**	TOGS 1.3.3								
		7 Day Avg	8000	1600	62 / 0	**8000**	TOGS 1.3.3								
	% Rem	Minimum	85	91 min	62 / 0	**85**	ECL 17-0509								
	Consistent with 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	5.4	62 / 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	14	62 / 0	**45**	TOGS 1.3.3								
	lbs/d	Monthly Avg	6000	850	62 / 0	**6000**	TOGS 1.3.3								
		7 Day Avg	9000	2900	62 / 0	**9000**	TOGS 1.3.3								
	% Rem	Minimum	85	89 min	62 / 0	**85**	ECL 17-0509								

Outfall #	001	**Description of Wastewater:** Treated Sanitary Wastewater **Type of Treatment:** Fine screens, primary settling tanks, aeration tanks, secondary settling and UV disinfection

Effluent Parameter	Units	Averaging Period	Existing Discharge Data: Permit Limit	Existing Discharge Data: Existing Effluent Quality[8]	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
	Consistent with TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. Given that adequate dilution is available, an effluent limitation equal to the TBEL, and consistent with TOGS 1.3.3, is protective of water quality standards.														
Settleable Solids	mL/L	Daily Max	0.3	<0.1	0 / 62	**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 WQS.														
Nitrogen, Total Kjeldahl (TKN) (as N) June 1st to October 31st	mg/L	Monthly Avg	16	2.7	25 / 0	**16**	Antibacksliding	0.5[10]	0.61	Narrative: None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.	-	-	-	-	TBEL
	The projected instream concentration was calculated using the maximum reported effluent concentration of 3.8 mg/L and an ambient upstream concentration of 0.5 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.3 was applied to the projected effluent to account for the number of samples. Due to antibacksliding, the existing limit is being continued.														
Total Mercury	ng/L	Daily Max	Not Currently Required			50	GLCA	-	-	0.7	H(FC)	0.7	703.5	-	DOW 1.3.10
	ng/L	12 MRA	Not Currently Required			12	DOW 1.3.10	-	-	-	-	-	-	-	DOW 1.3.10
	See Mercury section of this factsheet.														
Coliform, Fecal	#/100 ml	30d Geo Mean	200	20	5 / 20	**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	85	15 / 10	**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.														
Total Residual Chlorine (TRC)	mg/L	Daily Max	0.6	NA	NA	**0.6**	Anti-backsliding	-	-	0.005	A(C)	No Reasonable Potential	703.5	0.03	TBEL
	Effluent disinfection is currently required seasonally and will remain a permit requirement. The existing limit will continue. Since the facility disinfects with UV system, monitoring of TRC is not required when TRC is not used.														
Additional Pollutants Detected															

[10] Ambient TKN value obtained from the average of 11 data points on record from ambient RIBS station 13-LHUD-125.8, for the period of 2017 to 2020.

Outfall #	001	**Description of Wastewater:** Treated Sanitary Wastewater
		Type of Treatment: Fine screens, primary settling tanks, aeration tanks, secondary settling and UV disinfection

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[8]	# 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 Lead	lbs/d	Daily Max	2.5	0.53 max	3 / 59	2.5	Antibacksliding	0.1[11] ug/L dissolved	0.13 ug/L dissolved	77 ug/L dissolved	A(C)	No Reasonable Potential	703.5		TBEL
	Since the permit does not require the reporting of concentration data, the maximum concentration of 3.7 ug/L was estimated using maximum loading (0.53 lb/d) and average flow (17 mgd). The projected instream concentration was calculated using the estimated maximum effluent concentration of 3.7 ug/L and an ambient upstream concentration of 0.1 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.0 was applied to the projected effluent to account for the number of samples. A metals translator of 2.5 was applied to convert between the total and dissolved form in accordance with the TriBasin RIBS calculation. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Due to antibacksliding, the existing limit has been continued. The sampling frequency is reduced from monthly to quarterly due to large amount of non-detects. For future data evaluation and characterization of effluent, reporting of concentration has been added.														
Total Arsenic	lbs/d	Daily Max	2.8 AL	0.27	1 / 20	-	-	0	.02	150	A(C)	No Reasonable Potential	703.5		Discontinued
	Since the permit does not require the reporting of concentration data, the maximum concentration of 1.9 ug/L was estimated using maximum loading (0.27 lb/d) and average flow (17 mgd). The projected instream concentration was calculated using the estimated maximum effluent concentration of 1.9 ug/L and a negligible ambient upstream concentration. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.3 was applied to the projected effluent to account for the number of samples. A metals translator of 1.7 was applied to convert between the total and dissolved form in accordance with the TriBasin RIBS calculation. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Since there has been no detection since 2019, action level monitoring is discontinued.														
Total Copper	lbs/d	Daily Max	11 AL	1.1 max	19 / 2	-	-	1.4[12] ug/L dissolved	1.5 ug/L dissolved	11 ug/L dissolved	A(A)	No Reasonable Potential	703.5		Discontinued
	Since the permit does not require the reporting of concentration data, the maximum concentration of 7.8 ug/L was estimated using maximum loading (1.1 lb/d) and average flow (17 mgd). The projected instream concentration was calculated using the estimated maximum effluent concentration of 7.8 ug/L and an ambient upstream concentration of 1.4 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.3 was applied to the projected effluent to account for the number of samples. A metals translator of 1.8 was applied to convert between the total and dissolved form in accordance with the TriBasin RIBS calculation. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. The 2023 NY2A application Table C indicated that 17 samples were collected within the past two years, and all of them were below the EPA 200.7's reporting level. Additional concentration data were provided by the County on 4/2/2024, and the Department noted that all the data collected after the application were also below the EPA 200.7's reporting level. Therefore, action level monitoring is discontinued.														
Total Zinc	lbs/d	Daily Max	23 AL	4.0 max	19 / 2	-	-	3.4[13] ug/L dissolved	3.8 ug/L dissolved	98 ug/L dissolved	A(A)	No Reasonable Potential	703.5		Action Level

[11] Ambient dissolved lead value obtained from the average of 3 data points on record from ambient RIBS station 13-LHUD-125.8, in 2018.

[12] Ambient dissolved copper value obtained from the average of 13 data points on record from ambient RIBS station 13-LHUD-125.8, for the period of 2017 to 2020.

[13] Ambient dissolved zinc value obtained from the average of 2 data points on record from ambient RIBS station 13-LHUD-125.8, for the period of 2017 to 2018.

Outfall #	001	**Description of Wastewater:** Treated Sanitary Wastewater **Type of Treatment:** Fine screens, primary settling tanks, aeration tanks, secondary settling and UV disinfection

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[8]	# 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		
	Since the permit does not require the reporting of concentration data, the maximum concentration of 28 ug/L was estimated using maximum loading (4.0 lb/d) and average flow (17 mgd). The projected instream concentration was calculated using the estimated maximum effluent concentration of 28 ug/L and an ambient upstream concentration of 3.4 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.3 was applied to the projected effluent to account for the number of samples. A metals translator of 2.0 was applied to convert between the total and dissolved form in accordance with the TriBasin RIBS calculation. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Due to continued detection, the existing action level has been continued. For future data evaluation and characterization of effluent, reporting of concentration has been added. Additional concentration data were provided by the County on 4/2/2024, and the Department noted that all the data collected after the application were below the EPA 200.7's reporting level.														
Total Phenolics	lbs/d	Daily Max	6.0 AL	0.91	1 / 20			0	0.09 ug/L	5 ug/L	E(FS)	No Reasonable Potential	703.5		Discontinued
	Since the permit does not require the reporting of concentration data, the maximum concentration of 6.4 ug/L was estimated using maximum loading (0.91 lb/d) and average flow (17 mgd). The projected instream concentration was calculated using the estimated maximum effluent concentration of 7.8 ug/L and a negligible ambient upstream concentration. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.3 was applied to the projected effluent 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. Since there has been no detection since 2019, action level monitoring is discontinued.														
Total Phosphorus	mg/L	Daily Max	N/A	4.1	4 / 0	-	-	0.068[14]	0.32	Narrative: None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.	-	-			No Limitation
	Total Phosphorus was detected in the effluent as reported in the NY-2A application. The projected instream concentration was calculated using the maximum reported effluent concentration of 4.1 mg/L and an ambient upstream concentration of 0.068 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 2.6 was applied to the projected effluent to account for the number of samples. Since there are no Class C WQS, reasonable potential cannot be determined, thus no limitation or monitoring requirement is specified.														
Total Dissolved Solids (TDS)	mg/L	Daily Max	N/A	443	3 / 0	-	-	148[15]	176	500	Narrative	No Reasonable Potential	-		No Limitation
	TDS was detected in the effluent as reported in the NY-2A application. The projected instream concentration was calculated using the maximum reported effluent concentration of 443 mg/L and an ambient upstream concentration of 148 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 3 was applied to the projected effluent 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 limitation or monitoring requirement is specified.														

[14] Ambient total phosphorus value obtained from the average of 12 data points on record from ambient RIBS station 13-LHUD-125.8, for the period of 2017 to 2020.
[15] Ambient total dissolved solids value obtained from the average of 13 data points on record from ambient RIBS station 13-LHUD-125.8, for the period of 2017 to 2020.

Outfall #	001	**Description of Wastewater:** Treated Sanitary Wastewater
		Type of Treatment: Fine screens, primary settling tanks, aeration tanks, secondary settling and UV disinfection

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[8]	# 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		
Nitrite (as N)	ug/L	Daily Max	N/A	250	5 / 0	-	-	34[16]	78	100	A(C)	No Reasonable Potential	703.5		No Limitation
	Nitrite was detected in the effluent as reported in the NY-2A application. The projected instream concentration was calculated using the maximum effluent concentration of 250 ug/L and an ambient upstream concentration of 34 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 2.3 was applied to the projected effluent 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.														
Nitrate (as N)	mg/L	Daily Max	N/A	8.3	5 / 0	-	-	0.49[17]	0.94	-	-	-	-		No Limitation
	Nitrate was detected in the effluent as reported in the NY-2A application. The projected instream concentration was calculated using the maximum effluent concentration of 8.3 mg/L and an ambient upstream concentration of 0.49 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 2.3 was applied to the projected effluent to account for the number of samples. Since there are no Class C WQS, reasonable potential cannot be determined, thus no limitation or monitoring requirement is specified.														
Total Nitrogen (as N)	mg/L	Daily Max	N/A	8	2 / 0	-	-	0.98[18]	1.7	-	-	-	-		No Limitation
	Total Nitrogen was detected in the effluent as reported in the NY-2A application. The projected instream concentration was calculated using the maximum effluent concentration of 8 mg/L and an ambient upstream concentration of 0.98 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 3.8 was applied to the projected effluent to account for the number of samples. Since there are no Class C WQS, reasonable potential cannot be determined, thus no limitation or monitoring requirement is specified.														
Nitrogen, Ammonia (as N)	mg/L	Monthly Avg	-	0.18 max	3 / 0	-	-	0.087[19]	0.093	1.1	A(C)	No Reasonable Potential	703.5		No Limitation
	The WQS for Ammonia was determined from TOGS 1.1.1 from a summer pH of 7.8[20] and a temperature of 25 C (assumed value and consistent with TOGS 1.3.1E). The projected instream concentration was calculated using the maximum reported effluent concentration of 0.18 mg/L and an ambient upstream concentration of 0.087 mg/L. A multiplier[21] of 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. In addition, ammonia is a constituent of TKN, and the TKN limit is already in place. Therefore, no limitation is specified.														

[16] Ambient nitrite data obtained from the average of 7 data points on record from ambient RIBS station 13-LHUD-125.8, for the period of 2017 to 2019.
[17] Ambient nitrite data obtained from the average of 12 data points on record from ambient RIBS station 13-LHUD-125.8, for the period of 2017 to 2020.
[18] Ambient nitrite data obtained from the average of 11 data points on record from ambient RIBS station 13-LHUD-125.8, for the period of 2018 to 2020.
[19] Ambient nitrite data obtained from the average of 11 data points on record from ambient RIBS station 13-LHUD-125.8, for the period of 2017 to 2020.
[20] Ambient pH data calculated from the 75th percentile of 22 data points on record from ambient RIBS station 13-LHUD-133.4, for the period of 1997 to 2017.
[21] As recommended from EPA's Technical Support Document, Chapter 3.3

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

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 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 wasteload allocations (WLAs) are allocated equitably.

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[22] and USEPA interpretation[23] 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

[22] American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)
[23] 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)

to ensure that the water quality standards of receiving waters are met. In general, the CWA requires that the effluent limitations for a particular pollutant are the more stringent of either the TBEL or WQBEL.

Technology-based Effluent Limitations (TBELs)

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

Water Quality-Based Effluent Limitations (WQBELs)

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

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).

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 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.

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

Schedule(s) of Additional Submittals

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

Pollutant Minimization Programs

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