

State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code: 4952	NAICS Code:	221320		SPDES Number:	NY 027 2817
Discharge Class (CL):	07			DEC Number:	3-4828-00325/00001
Toxic Class (TX):	Т			Effective Date (EDP):	EDP
Major-Sub Drainage Basin:	13 - 06			Expiration Date (ExDP):	ExDP
Water Index Number:	H-139-14-38- P807	Item No.:	855 - 131	Modification Dates (EDPM):	
Compact Area:	-			modification bates (EBI W).	

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

PERMITTEE NAME AND ADDRESS							
Name:	Village of Woodridge	Attention:	Marian				
Street:	P.O. Box 655		Mayor				
City:	Woodridge	State:	NY	Zip Code:	12789		
Email:	joanicollins@hotmail.com	Phone:	(845) 4	34-7447			

is authorized to discharge from the facility described below:

FACILITY NAME, A	FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL																
Name:	Village	lage of Woodridge WWTP															
Address / Location:	1 Gree	Greenfield Road County: Sullivan															
City:	Woodr	Woodridge					State:	NY	Zip Code	Zip Code:		12789					
Facility Location:		Latitude:		41	0	42	,	27	" N	& Longitude:	74	0		33	,	56	"W
Primary Outfall No.:	001	Latitude:		41	0	42	,	28	" N	& Longitude:	74	0		33	,	48	" W
Outfall Description:	Treate	d Sanitary	R	eceivi	ng	Wate	r:	Silv	er Lake	•	Class:	E	3	St	and	dard:	-

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:		
Signature:	Date:	

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DEFINITIONS

TERM	DEFINITION		
7-Day Geo Mean	The highest allowable geometric mean of daily discharges over a calendar week.		
7-Day Average	The average of all daily discharges for each 7-days in the monitoring period. The sample measurement is the highest of the 7-day averages calculated for the monitoring period.		
12-Month Rolling Average (12 MRA)	The current monthly value of a parameter, plus the sum of the monthly values over the previous 11 months for that parameter, divided by the number of months for which samples were collected in the 12-month period.		
30-Day Geometric Mean	The highest allowable geometric mean of daily discharges over a calendar month, calculated as the antilog of: the sum of the log of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.		
Action Level	Action level means a monitoring requirement characterized by a numerical value that, when exceeded, triggers additional permittee actions and department review to determine if numerical effluent limitations should be imposed.		
Compliance Level / Minimum Level			
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.		

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PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
001	All year unless otherwise noted	Silver Lake	EDP	ExDP

545445755	LUENT L	IMITATIO	ON		MONITORING REQUIREMENTS					
PARAMETER	Туре	Limit	Units	Limit	Units	Sample Frequency			ation Eff.	FN
Flow	Monthly Average	0.80	MGD		0	Continuous	Recorder	Х		
	Daily Minimum	6.5	SU							
рН	Daily Maximum	8.5	SU			1/day	Grab		Х	
BOD₅	7-Day Average	5.0	mg/L	33	lbs/d	2/month	6-hr. Comp.	Х	Х	1
Total Suspended Solids (TSS)	7-Day Average	10	mg/L	67	lbs/d	2/month	6-hr. Comp.	х	×	1
Settleable Solids	Daily Maximum	0.1	mL/L			1/day	Grab		Х	
Dissolved Oxygen	Daily Minimum	7.0	mg/L			1/day	Grab		Х	
Ammonia (as N) June 1 st – October 31 st	Monthly Average	0.91	mg/L			2/month	6-hr. Comp.		х	
Ammonia (as N) November 1 st – May 31 st	Monthly Average	1.8	mg/L			2/month	6-hr. Comp.		Х	
Temperature	Daily Maximum	Monitor	٥F			1/day	Grab		Х	
Total Phosphorus (as P)	Monthly Average	0.5	mg/L			2/month	6-hr. Comp.		Х	
Total Mercury	Daily Maximum	50	ng/L			1/month	Grab	Х	Х	
ACTION LEVEL PARAMETERS	Туре	Action Level	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Total Aluminum	Daily Maximum	Monitor	μg/L			1/month	Grab		Х	3,4
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			2/month	Grab		х	
Coliform, Fecal	7-Day Geometric Mean	400	No./ 100 mL			2/month	Grab		Х	
WHOLE EFFLUENT TOXICI	TY (WET) TESTING	Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
WET - Acute Invertebrate	See footnote			0.3	TUa	Quarterly	See footnote		Х	2,5
WET - Acute Vertebrate	See footnote			0.3	TUa	Quarterly	See footnote		Х	2,5
WET - Chronic Invertebrate	See footnote			1.3	TUc	Quarterly	See footnote		Х	2,5
WET - Chronic Vertebrate	See footnote			1.3	TUc	Quarterly	See footnote		Х	2,5

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FOOTNOTES:

- 1. Effluent shall not exceed 15% of influent concentration values for BOD₅ & TSS.
- 2. 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).
- 3. <u>Action Levels</u>: Results shall be expressed in concentration. 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 monthly DMR data.
- 4. Sampling and reporting for total aluminum are only necessary if aluminum is used for phosphorus removal, elsewhere in the treatment process, or the facility otherwise has reasonable potential to discharge aluminum. Otherwise, the permittee shall report NODI-9 on the DMR.

5. Whole Effluent Toxicity (WET) Testing:

Testing Requirements – Chronic WET testing is required, but report both the acute and chronic results. 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 1:1 for acute, and 1:1 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.

<u>Monitoring Period</u> - WET testing shall be performed quarterly (calendar quarters) during calendar years ending in **4** and **9**.

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.

<u>WET Testing Action Level Exceedances</u> - 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.

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MERCURY MINIMIZATION PROGRAM (MMP) - Type II

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

- 1. MMP Elements The MMP must be a written document and must include any necessary drawings or maps of the facility and/or collection system. Other related documents already prepared for the facility may be used as part of the MMP and may be incorporated by reference. At a minimum, the MMP must include the following elements as described in detail below:
 - a. <u>Monitoring</u> 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 136¹. 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. <u>Sewage Treatment Plant Influent and/or Effluent</u> The permittee must collect samples at the location(s) and frequency as specified in the SPDES permit limitations table.
- ii. <u>Key Locations and Potential Mercury Sources</u> The permittee must sample *key locations*, chosen to identify *potential mercury sources*, at least annually. Sampling of discharges from dental facilities in compliance with 6 NYCRR 374.4 is not required.
- iii. <u>Hauled Wastes</u> 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. <u>Decreased Monitoring Requirements</u> Facilities with EEQ at or below 12 ng/L are eligible for the following:
 - 1) Reduced requirements, through a permittee-initiated permit modification
 - a) Conduct influent monitoring, sampling semi-annually, in lieu of monitoring within the collection system, such as at *key locations*; and
 - b) Conduct effluent compliance sampling semi-annually.
 - 2) If a facility with reduced requirements reports discharges above 12 ng/L for two of four consecutive effluent samples, the Department may undertake a Department-initiated modification to remove the allowance of reduced requirements.
 - 3) Under the decreased permit requirements, the facility must continue to conduct a status report, as applicable in accordance with 2.c of this MMP, to determine if any waste streams have changed.
- 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.

²A 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.

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

- b. Control Strategy The control strategy must contain the following minimum elements:
 - i. <u>Pretreatment/Sewer Use Law</u> 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. <u>Systems with CSO & Type II SSO Outfalls</u> Permittees must prioritize *potential mercury sources* upstream of CSOs and Type II SSOs for mercury reduction activities and/or controlled-release discharge.
 - iv. <u>Equipment and Materials</u> 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. <u>Bulk Chemical Evaluation</u> 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. <u>Status Report</u> An annual status report must be developed and maintained on site, in accordance with the <u>Schedule of Additional Submittals</u>, 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:

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- iii. All actions undertaken, pursuant to the control strategy, during the previous reporting period;
- iv. Actions planned, pursuant to the control strategy, for the upcoming reporting period; and
- v. Progress towards achieving a dissolved mercury concentration of 0.70 ng/L in the effluent (e.g., summarizing reductions in effluent concentrations as a result of the control strategy implementation and/or installation/modification of a treatment system).

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

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

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.

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DISCHARGE NOTIFICATION REQUIREMENTS

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.

- (a) 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.
- (b) 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.
- (c) 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: () - ### - ####			

- (d) 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.
- (e) 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.

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MINI INDUSTRIAL PRETREATMENT PROGRAM

The permittee previously performed the actions described in items 1 through 4 below in order to develop a mini pretreatment program:

1. Industrial Survey

The permittee submitted the results of an industrial survey.

2. Develop Procedures

The permittee submitted documentation of procedures for obtaining and ensuring compliance with applicable standards. Such procedures include requirements and schedules for discharge permits, industrial self-monitoring, compliance monitoring of industries by the permittee, on-going POTW monitoring, and an enforcement program. Such procedures are equivalent to procedures described or referenced in the document entitled <u>Introduction to the National Pretreatment Program, USEPA, June, 2011, 1988</u>

(https://www3.epa.gov/npdes/pubs/pretreatment program intro 2011.pdf).

3. Treatment Plant/Industry Monitoring

The permittee submitted the results of industrial and POTW monitoring and a completed Fast Report On Significant Industries forms (FROSIs) for all significant industrial users (SIUs).

4. Local Sewer Use Law

The permittee submitted a draft local sewer use law equivalent to the <u>DEC Model Sewer Use Law, NYSDEC, 1994</u>. Local limits for substance capable of causing SPDES permit violations, endangering municipal employees or limiting sludge disposal options were included in the local law. Such limits were developed in accordance with document entitled <u>Local Limits Development Guidance, US EPA, July 2004, EPA 833-R-04-002A</u> (https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=300062Q1.txt). After approval by the Department, dated September 6, 2011, the permittee submitted a copy of the enacted Law accompanied by proof of enactment.

Therefore, the permittee shall continue to implement the procedures developed in accordance with 2. above and approved by the Department. At a minimum, the following activities shall continue to be undertaken by the permittee:

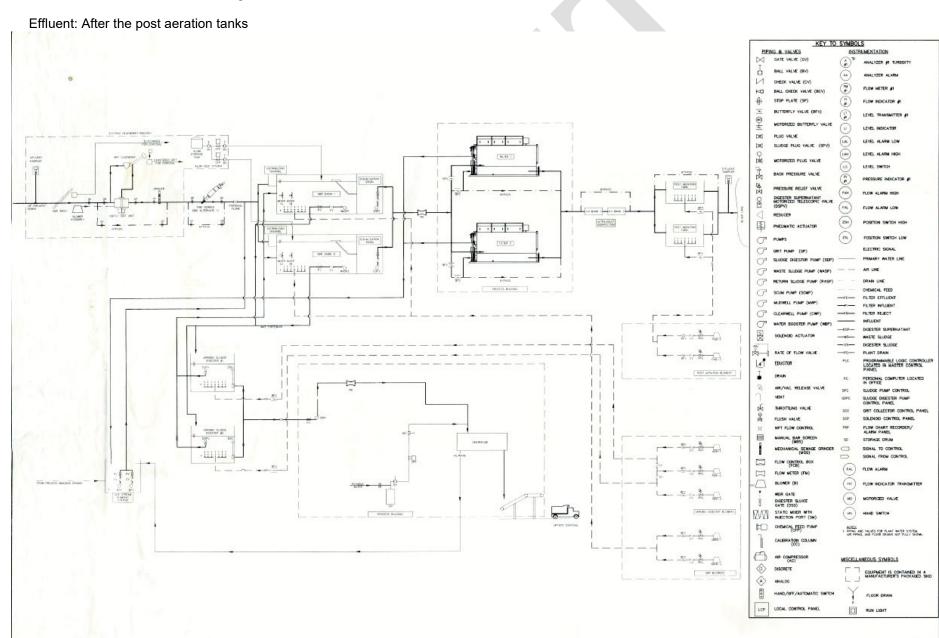
- 1. Issue permits including limitations, monitoring requirements, and reporting requirements to its significant industrial users
- 2. Enforce the local limits set forth in the POTW local sewer use law.
- 3. Carry out inspections and monitoring of significant industrial users to determine compliance with categorical standards and local limits.
- 4. Undertake enforcement actions in accordance with Department approved procedures.

In accordance with the Schedule of Additional Submittals, the permittee shall submit yearly Fast Report On Significant Industries forms (FROSIs) for each SIU to the Department. Every third year, on the same date, the permittee shall submit Industrial Chemical Survey forms completed by all SIUs to the Department. At the same time the permittee shall notify the Department of any proposed significant changes to its implementing procedures or local sewer use law.

MONITORING LOCATIONS

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

Influent: Before the bar rack/vortex grit unit



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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.

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GENERAL REQUIREMENTS (continued)

2. Notification Requirement for POTWs

All POTWs shall provide adequate notice to the Department and the USEPA of the following:

- 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

Phone: (518) 402-8111

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RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

- A. The monitoring information required by this permit shall be retained for a period of at least five years from the date of the sampling for subsequent inspection by the Department or its designated agent.
- B. <u>Discharge Monitoring Reports (DMRs):</u> Completed DMR forms shall be submitted for each <u>one (1)</u> 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.

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

Department of Environmental Conservation Regional Water Engineer, Region 3 21 South Putt Corners Road, New Paltz, New York, 12561-1696 Phone: (845) 256-3000

- 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:

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	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 . 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.	EDP + 14 months Within 90 days of DEC written notification
001	WATER TREATMENT CHEMICAL (WTC) ANNUAL REPORT FORM The permittee shall submit a completed WTC Annual Report Form each year that Water Treatment Chemicals are used. The form shall be attached to the December DMR.	December DMR (January 28 th)
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 28 th)
001	SHORT-TERM HIGH-INTENSITY MONITORING PROGRAM The permittee shall collect 12 samples representative of normal discharge conditions and treatment operations over 12 months for nitrite (as N), total dissolved solids, total copper, total zinc, and total selenium. The permittee shall use approved EPA analytical methods with the lowest possible detection limit as promulgated under 40CFR Part 136 for the determination of the concentrations of parameters listed. The permittee shall submit a summary of the results.	EDP + 14 months
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	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

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		1 agc 10 of 1											
	SCHEDULE OF ADDITIONAL SUBMITTALS												
Outfall(s)	Required Action	Due Date											
001	MINI PRETREATMENT PROGRAM - FROSI Submit completed Fast Report On Significant Industries forms (FROSIs) for each SIU to the Department, or notification letter that no new significant industrial users have been added.	February 28 th of each year											
001	MINI PRETREATMENT PROGRAM – Industrial Chemical Survey (ICS) Forms Submit Industrial Chemical Survey forms completed by all SIUs to the Department. Notify the Department of any proposed significant changes to its implementing procedures or local sewer use law.	February 28 th and every three years thereafter											

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

- F. Monitoring and analysis shall be conducted using sufficiently sensitive test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
- G. More frequent monitoring of the discharge(s), monitoring point(s), or waters of the State than required by the permit, where analysis is performed by a certified laboratory or where such analysis is not required to be performed by a certified laboratory, shall be included in the calculations and recording of the data on the corresponding DMRs.
- H. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- I. Unless otherwise specified, all information recorded on the DMRs shall be based upon measurements and sampling carried out during the most recently completed reporting period.
- J. Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section 502 of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be directed to the New York State Department of Health, Environmental Laboratory Accreditation Program.

Permittee: Village of Woodridge Facility: Village of Woodridge WWTP SPDES Number: NY0272817 USEPA Non-Major/Class 07 Municipal Date: November 14, 2023 v.1.17 Permit Writer: Kirsten Jedd-Barry

Water Quality Reviewer: Kirsten Jedd-Barry

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SPDES Permit Fact Sheet Village of Woodridge Village of Woodridge WWTP NY0272817



USEPA Non-Major/Class 07 Municipal

Date: November 14, 2023 v.1.17 Permit Writer: Kirsten Jedd-Barry Water Quality Reviewer: Kirsten Jedd-Barry Full Technical Review

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Summary of Permit Changes

A new State Pollutant Discharge Elimination System (SPDES) permit has been drafted for the Village of Woodridge WWTP. The changes to the permit are summarized below:

- Updated permit format, definitions, and general conditions
- Updated receiving waterbody information
- Removed the monthly average BOD₅ limit
- Removed the monthly average TSS limit
- Updated the summer and winter ammonia limits reporting from (as NH₃) to (as N)
- Removed the temperature action level
- Added a daily maximum monitor only limit for temperature
- Added a daily maximum mercury limit of 50 ng/L
- Added a daily maximum, monitor only total aluminum action level
- Updated the disinfection season to May 1st through October 31st
- Added a WET acute invertebrate and vertebrate action level of 0.3 TUa
- Added a WET chronic invertebrate and vertebrate action level of 1.3 TUc
- Added Mercury Minimization Program Type II requirements
- Added a flow schematic for display of monitoring locations
- Added a Schedule of Additional Submittals

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

3/1/2008

The last full technical review was performed and the SPDES permit became effective with a new five-year term and expiration date of 2/28/2013. The 2008 permit has formed the basis of this permit.

The permit was administratively renewed in 2013 and again in 2018. The current permit administrative renewal is effective until 2/28/2023.

2/28/2023 The SPDES permit expired.

7/14/2023 The Village of Woodridge submitted a new NY-2A permit application to renew the expired permit.

The Notice of Complete Application, published in the <u>Environmental Notice Bulletin</u> 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 wastewater. The collection system consists of separate sewers. The facility accepts flow from significant industrial users (SIUs).

The current 0.8 MGD treatment plant consists of:

- Preliminary Treatment: Bar rack, vortex grit unit, and fine screen
- Secondary Treatment: Sequencing Batch Reactors, equalization

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• Tertiary Treatment: Disc filters, post aeration

• Disinfection: UV

Sludge is digested aerobically and pumped to a centrifuge to prepare for offsite disposal.

The primary outfall (Outfall 001) is located at the bank of Silver Lake and consists of a 16" diameter pipe.

The facility does not have any planned improvements.

The facility accepts wastewater from the following municipalities:

Municipality	POSS # or SPDES #	Collection System				
Village of Woodridge	NY0272817	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)
Newburg Egg ¹	2015	432

¹ Newburg Egg is currently under a Consent Agreement and Final Order with the USEPA, Docket No. CWA-02-2023-3401.

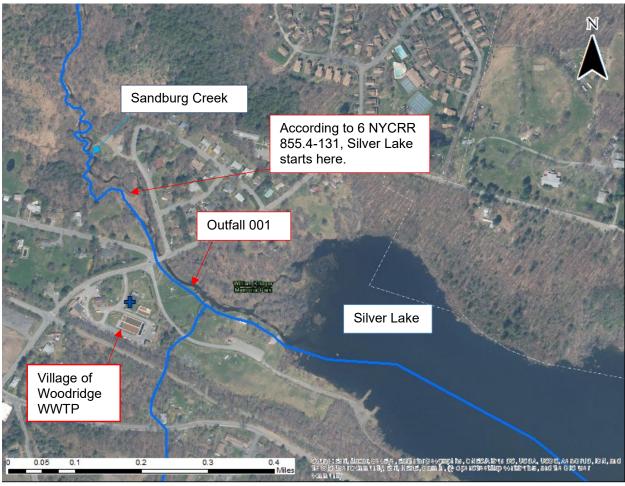
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Site Overview



Enforcement History

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

Existing Effluent Quality

The Pollutant Summary Table presents the existing effluent quality and effluent limitations. The existing effluent quality was determined from Discharge Monitoring Reports and the application submitted by the permittee for the period 6/1/2018 to 5/31/2023. Appendix Link

Receiving Water Information

The facility discharges via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water						
001	4952	Treated Sanitary Sewer	Silver Lake, Class B						

Reach Description: Silver Lake (H-139-14-38-P807-3) is a tributary of the Sandburg Creek and is part of the Lower Hudson River Drainage Basin. The segment of Silver Lake at the point of discharge if classified as B (6NYCRR 855.4 – Table I – Item 131).

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

Impaired Waterbody Information

Silver Lake segment (PWL No. 1306-0124) is not listed on the 2018 New York State Section 303(d) List of Impaired/TMDL Waters, and therefore, there are no applicable wasteload allocations (WLAs) for this discharge.

Critical Receiving Water Data & Mixing Zone

The low flow condition for this portion of Silver Lake was obtained from a drainage basin ratio analysis with USGS gage station Sandburg Creek at Ellenville, 01366650 located downstream of the facility. The 7Q10 flow and drainage area at the gage were found from the USGS/NYSDEC Bulletin 74, 1979. The 1Q10 flow was estimated as half the 7Q10 and the 30Q10 flow was estimated as 1.2 x 7Q10.

Gage Name: Sandburg Creek at Ellenville

Gage ID: 01366650

Drainage Area at Gage (mi²): 56.7 Drainage Area at Facility (mi²): 3.4

7Q10 Flow at Gage (CFS): 6.8 Source: Bulletin 74

Calculated 7Q10 Flow at Facility (CFS): 0.41

Estimated 1Q10 (CFS): 0.20 Estimated 30Q10 (CFS): 0.49

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

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

Outfall No.	Acute Dilution Ratio A(A)	Chronic Dilution Ratio A(C)	Human, Aesthetic, Wildlife Dilution Ratio (HEW)	Basis
001	1.2:1	1.3:1	1.4:1	TOGS 1.3.1

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

Permit Requirements

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

Whole Effluent Toxicity (WET) Testing

An evaluation of the discharge indicates the potential for toxicity based on the following criteria: Appendix Link

Facilities of less than 1MGD that are managing industrial pretreatment programs. (#7)

The requirement for WET testing is new. No previous WET data was available to perform a reasonable potential analysis. Consistent with TOGS 1.3.2, given the dilution available and location outside of the Great Lakes basin, the permit requires chronic WET testing. WET testing action levels of 0.3 TUa and 1.3 TUc have been included in the permit for each species. The acute

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dilution ratio is less than 3.3 and the acute action level has been set equal to the default value of 0.3 TUa². The chronic action levels represent the chronic dilution ratio. Samples will be collected quarterly once every five years.

Anti-backsliding

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

Appendix Link

Antidegradation

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

Discharge Notification Act Requirements

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

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

Mercury⁴

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

The facility is not located within the Great Lakes watershed, however it is an EPA Significant Minor, Class 07 POTW with a known mercury source and a design flow less than 1 MGD. Therefore, the permit includes requirements for the implementation of MMP Type II.

Based on four data point(s) with a maximum value of 11.5 ng/L collected as part of the application the facility is expected to meet the new daily max permit limit of 50 ng/L (with monthly sampling frequency). The limit represents the general level currently achievable (GLCA). The data collected will be used to establish an additional 12-month rolling average effluent limit during the next permit review.

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

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

Mini Industrial Pretreatment Program

The permittee is required to continue implementation of a Mini-Pretreatment Program because it serves Significant Industrial Users (SIUs). The program requires implementation of an industrial user compliance program, submission of user information, modification of local sewer use law (if necessary), and periodic reporting. Appendix Link

² EPA's Technical Support Document Section 5.7.4

³ As prescribed by 6 NYCRR Part 617

⁴ In accordance with DOW 1.3.10 Mercury – SPDES Permitting & Multiple Discharge Variance (MDV), December 30, 2020.

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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 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):

- Emerging Contaminant Short-Term Monitoring Program
- Water Treatment Chemical (WTC) Annual Report form
- Annual Flow Certification
- Short-Term High-Intensity Monitoring Program for the following parameters:
 - Total Copper
 - Total Zinc
 - Total Selenium
 - Nitrite (as N)
 - Total Dissolved Solids (TDS)
- Mercury Minimization Plan Annual Report (maintained onsite)
- Mini Pretreatment Program FROSI form
- Mini Pretreatment Program Industrial Chemical Survey (ICS) form

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OUTFALL AND RECEIVING WATER SUMMARY TABLE

					Water Index No. /	Major /					Critical	Dil	atio	
Outfall	Latitude	Longitude	Receiving Water Name	Water Class	Priority Waterbody Listing (PWL) No.	Sub Basin	Hardness (mg/l)	1Q10 (MGD)	7Q10 (MGD)	30Q10 (MGD)	Effluent Flow (MGD)	A(A)	A(C)	HEW
001	41° 42' 28" N	74° 33' 48" W	Silver Lake	В	H-139-14-38- P807-3 PWL: 1306-0124	13 / 06	27.9 ⁵	0.13	0.26	0.32	0.8	1.2: 1	1.3: 1	1.4:1

POLLUTANT SUMMARY TABLE

Outfall 001

Outfall #	001	Description	escription of Wastewater: Treated Sanitary Sewage													
Outrail #		Type of Tre	atment:	Grit remov	al and scree	ning, seque	encing batch read	ctors with e	equalization	n, disc filter	rs, and UV o	lisinfection				
		Averaging Period	Existing Discharge Data			7	TBELs			•	/ Data & Wo	QBELs			Basis for	
Effluent Parameter	Units		Permit Limit	Quality	# of Data Points Detects / Non- Detects		Basis	Conc.	Projected Instream Conc.	or GV	WQ Type	Calc. WQBEL	Basis for WQBEL	ML	Permit Requirement	
	General Notes: Existing discharge data from June 1, 2018 to May 31, 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	0.80	0.64 Actual Average	60 / 0	0.80	Design Flow		Narrative: No alterations that will impair the waters for their best usages. 703.2						TBEL	
	Consist	Consistent with TOGS 1.3.3, a monthly average flow limitation equal to the average daily design capacity of the treatment plant is specified.														
	SU	Minimum	6.5	6.5 Actual Min	60 / 0	6.0	TOGS 1 3 3	7 6 ⁷		65 95	Range	6.5 - 8.5	703.3		WQBEL	
pН	30	Maximum	8.5	9.1 Actual Max	60 / 0	9.0	TOGS 1.3.3	7.6 ⁷	-	6.5 – 8.5	Range	6.5 - 6.5	703.3	-	WQDEL	
	Consist is appro		GS 1.3.31	for POTWs	s, TBELs refl	ect seconda	ry treatment star	ndards. Giv	ven that add	equate dilu	tion is not a	vailable, an e	ffluent limita	tion e	qual to the WQS	
Temperature	°F	Daily Max	70 Action Level	80 Actual Max	60 / 0	Monitor	750-1.13 Monitor	Narrative (Trout): No discharge at a temperature over 70F (21C) shall be permitted at any time to streams classified for trout					704.2	-	TBEL	
	Consis	tent with 6 N	YCRR 75	50-1.13(a),	monitoring is	s required a	nd may be used	to inform f	future perm	itting decis	ions. This r	equirement is	new.			

⁵ Ambient hardness data obtained from RIBS monitoring station 13-SDBH-9.8.

⁶ 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)

⁷ Ambient pH obtained from RIBS Station 13-SDBG-9.8.

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Full Technical Review **Description of Wastewater:** Treated Sanitary Sewage Outfall # 001 Type of Treatment: Grit removal and screening, sequencing batch reactors with equalization, disc filters, and UV disinfection Existing Discharge Data **TBELs** Water Quality Data & WQBELs Basis for Effluent Averaging # of Data Existing Ambient Projected Units ML Permit Permit WQ Std. Calc. Basis for Parameter Period Points WQ Type Effluent Limit Bkad. Instream Basis Requirement WOBFI WOBFI Limit Detects / Nonor GV Quality⁶ Conc. Conc. Detects (Non-**TOGS** 7.0 60 / 0 Dissolved ma/L Daily Min 7.0 Trout) Narrative 7.0 ISEL Actual Min 1.3.1 Oxygen 4.0 mg/L (DO) Consistent with TOGS 1.3.1, intermittent stream effluent limits (ISEL) are applied to effluent discharges to streams where little or no streamflow is available for dilution. These limits represent the highest degree of treatment that can reasonably be achieved by a wastewater treatment facility treating domestic type waste. Monthly Monitor 6.8 57 / 3 30 TOGS 1.3.3 Discontinued Ava mg/L 7 Day Avg 5.0 17 58 / 2 45 TOGS 1.3.3 5.0 5-day **TOGS** See Dissolved Oxygen Biochemical 1.3.1 lbs/d 7 Day Avg 75 58 / 2 300 TOGS 1.3.3 33 ISFI Oxygen % 88 Demand 85 Minimum 60 / 0 85 TOGS 1.3.3 Actual Min Rem (BOD₅) Consistent with TOGS 1.3.1, intermittent stream effluent limits (ISEL) are applied to effluent discharges to streams where little or no streamflow is available for dilution. The existing permit required ISEL limits of BOD₅ = 5.0 mg/L, which supersedes the secondary treatment TBEL. No further stringency can be placed on BOD₅ limit. The numeric daily maximum limit of 5.0 mg/L is protective enough of water quality; therefore the monthly average monitor limit is being removed. Monthly Monitor 6.1 53 / 7 30 TOGS 1.3.3 Discontinued Avg Narrative: None from sewage, mg/L industrial wastes or other 7 Day Avg 10 14 52 / 8 45 TOGS 1.3.3 10 **TOGS** wastes that will cause 1.3.1 Total lbs/d 7 Day Avg 67 80 57 / 3 300 TOGS 1.3.3 67 deposition or impair the waters **ISEL** Suspended for their best usages. (703.2) % 82 Solids (TSS) 85 59 / 1 85 TOGS 1.3.3 Minimum Rem Actual Min Consistent with TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. Consistent with TOGS 1.3.1, intermittent stream effluent limits (ISEL) are applied to effluent discharges to streams where little or no streamflow is available for dilution. The numeric daily maximum limit of 10 mg/L is protective enough of water quality; therefore the monthly average monitor limit is being removed. Narrative: None from sewage, industrial wastes or other wastes that will cause 0.1 0.1 31 / 29 0.1 TOGS 1.3.3 703.2 **TBEL** mL/L Daily Max deposition or impair the waters for their best Settleable Solids usages Consistent with TOGS 1.3.3 the effluent limitation is equal to the TBEL of 0.1 mL/L for POTWs providing secondary treatment and filtration. Given that adequate dilution is available the TBEL is protective of the WQS. Monthly 0.52 0.082 Antibacksliding Nitrogen, mg/L 0.91 16 / 9 0.68 1.8 A(C) 2.4 703.5 Ava Ammonia The WQBEL was calculated using the water quality standard, an ambient upstream concentration of 0.082 mg/L and application of the HEW dilution ratio. The existing (as N) permit limit is less than the calculated WQBEL and is protective of water quality and will remain. June 1st - Oct.

Reporting for Ammonia has been changed from (as NH₃) to (as N) for simpler data reporting, as this is consistent with the laboratory reporting units. Values can be converted

using the equation: Ammonia (as N) = Ammonia (as NH₃) x 0.8224.

31st

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Full Technical Review **Description of Wastewater:** Treated Sanitary Sewage 001 Outfall # Type of Treatment: Grit removal and screening, sequencing batch reactors with equalization, disc filters, and UV disinfection Existing Discharge Data **TBELs** Water Quality Data & WQBELs Basis for Effluent Averaging # of Data Existing **Ambient** Projected Units MLPermit Permit WQ Std. Calc. Basis for Parameter Period Points WQ Type Effluent Limit Bkgd. Instream Basis Requirement WOBFI WOBFI Limit Detects / Nonor GV Quality⁶ Conc. Conc. Detects Monthly Nitrogen. mg/L 1.8 84 32/3 0.082 9.4 1.9 A(C) 2.5 703.5 Antibacksliding Avg Ammonia (as N) The WQBEL was calculated using the water quality standard, an ambient upstream concentration of 0.082 and application of the HEW dilution ratio. The existing permit limit is less than the calculated WQBEL and is protective of water quality and will remain. Nov. 1st - May 31st Reporting for Ammonia has been changed from (as NH₃) to (as N) for simpler data reporting, as this is consistent with the laboratory reporting units. Values can be converted using the equation: Ammonia (as N) = Ammonia (as NH₃) x 0.8224. Narrative: None in amounts that will result in growths of Monthly mg/L 0.5 0.44 46 / 14 0.5 TOGS 1.3.6 algae, weeds and TBFI Total Avg slimes that will **Phosphorus** impair the waters for (as P) their best usages. Consistent with TOGS 1.3.6 the effluent limitation is equal to the TBEL of 0.5 mg/L for wastewater discharges to lakes or in a lake watershed with a design flow greater than 0.5 MGD 11.5 4/0 0.7 **GLCA** DOW 1.3.10 ng/L Daily Max H(FC) 50 NY-2A **Total Mercury** See Mercury section of this factsheet. 30d Geo 200 142 24 / 6 200 TOGS 1.3.3 Narrative: The monthly geometric mean, #/100 Mean from a minimum of five examinations, shall 703.4 **TBEL** 7d Geo Coliform, Fecal 400 852 24 / 6 400 TOGS 1.3.3 not exceed 200. Mean 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 Additional Pollutants Detected

0.33

0.10

A(C)

0.13

703.5

STHIM

mg/L

Daily Max

0.145

3/0

Nitrite (as N)

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Outfall #	001	Description	of Was	tewater: T	reated Sanit	ary Sewage)								
Outian #		Type of Tre	atment:	Grit remov	al and scree	ening, seque	encing batch read	ctors with e	equalization	ı, disc filter	rs, and UV o	disinfection			
			Existing Discharge Data			-	TBELs		Water Quality Data & WQBELs						Basis for
Effluent Parameter	Units	Units Averaging Period	Permit Limit	Existing Effluent Quality ⁶	# 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	ML	Permit Requirement
	Nitrite was detected in the effluent as reported in the NY-2A application. The projected instream concentration was calculated using the maximum (reported or measured) effluent concentration of 0.145 mg/L and a negligent ambient upstream concentration. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 3.0 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates a reasonable potential to cause or contribute to a WQS violation and therefore a WQBEL is specified. Very limited data is available to confirm the presence or absence of this parameter and evaluate reasonable potential to cause or contribute to a WQS violation. Consistent with TOGS 1.3.3, short-term high-intensity monitoring (STHIM) is being required for nitrite to generate the data necessary to perform a future reasonable potential analysis. See Special Conditions and the Schedule of Additional Submittals.														
Nitrate (as N)		Daily Max was detected BEL is specif		2.498 ffluent as r	3 / 0 reported in th	- ne NY-2A ap	- oplication. A num	- eric water	- quality star	- ndard for n	itrate does	- not exist for C	- Class B wate	- erbodie	No Limit es. Therefore,
	mg/L	Monthly Average	-	763	3 / 0	-	-	-	1,640	500	Narrative	700	703.3	-	STHIM
Total Dissolved Solids (TDS)	effluent 3.0 was potentia Very lin Consist	concentrations applied to the applied to the all to cause of the all to cause of the all the a	on of 763 he project r contribu available GS 1.3.3,	mg/L and ted effluer to a WC to confirm short-term	a negligent and to account QS violation and the presentant high-intens	ambient ups for the num and therefor se or absend ity monitorii	lication. The project stream concentral ber of samples. A re a WQBEL is space of this parame of (STHIM) is be Additional Subm	tion. A mu A comparispecified. eter and eving require	Itiplier, as re son of the p aluate reas	ecommeno projected in onable po	ded in EPA's estream con tential to ca	s Technical S centration to use or contrib	Support Doc the WQS in oute to a WO	ument dicate	Chapter 3.3, of s a reasonable ation.
	μg/L	Daily Max	-	2.01	1/0	-	-	-	5.21	3.01	A(C)	7.2	703.5	-	STHIM
Copper was detected in the effluent as reported in the NY-2A application. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 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 a reasonable potential to cause or contribute to a WQS violation and therefore a WQBEL is specified. Very limited data is available to confirm the presence or absence of this parameter and evaluate reasonable potential to cause or contribute to a WQS violation. Consistent with TOGS 1.3.3, short-term high-intensity monitoring (STHIM) is being required for total copper to generate the data necessary to perform a future reasonable potential analysis. See Special Conditions and the Schedule of Additional Submittals.															
Total Selenium	μg/L	Daily Max	-	1.01	1/0	-	-	-	4.7	4.6	A(C)	6.1	703.5	-	STHIM

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O45-11 #	001	Description	rescription of Wastewater: Treated Sanitary Sewage													
Outfall #	001	Type of Tre	ype of Treatment: Grit removal and screening, sequencing batch reactors with equalization, disc filters, and UV disinfection													
		Averaging Period	Exist	ing Discha	rge Data		ΓBELs		Wa	ater Quality	/ Data & Wo	QBELs			Desig for	
Effluent Parameter	Units		Permit Limit	Existing Effluent Quality ⁶	# 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	ML	Basis for Permit Requirement	
	Selenium was detected in the effluent as reported in the NY-2A application. The projected instream concentration was calculated using the maximum (reported or measured) effluent concentration of 1.01 and a negligent ambient upstream concentration. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates a reasonable potential to cause or contribute to a WQS violation and therefore a WQBEL is specified. Very limited data is available to confirm the presence or absence of this parameter and evaluate reasonable potential to cause or contribute to a WQS violation. Consistent with TOGS 1.3.3, short-term high-intensity monitoring (STHIM) is being required for total selenium to generate the data necessary to perform a future reasonable potential analysis. See Special Conditions and the Schedule of Additional Submittals.															
	µg/L		- -	41	1 / 0	-	-	-	95.6	28	A(C)	74	703.5	_	STHIM	
Total Zinc	to the p the TriE and the Very lin Consist	orojected efflogasin RIBS carefore a WQ nited data is tent with TOO	uent to adalculation BEL is spansor available 3S 1.3.3,	ccount for n. A compa pecified. to confirm short-tern	the number arison of the the presend high-intens	of samples. projected in ce or absend ity monitorir	A metals transla	ator of 2.0 ation to the eter and evering require	was applied WQS indid aluate reas	d to conve cates a rea onable po	rt between in sonable pot tential to ca	the total and tential to caus use or contrib	dissolved for se or contribution	orm in oute to QS vic		
	μg/L	Daily Max	-	0.00541	1/0	-	-	-	-	_	-	-	-	-	No Limit	
δ-BHC		was detected BEL is specif		ffluent as	reported in th	ne NY-2A ap	oplication. A num	eric water	quality star	ndard for δ	-BHC does	not exist for	Class B wat	erbod	ies. Therefore,	

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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
 - o 40 CFR, Chapter I, subchapters D, N, and O
- State environmental regulations
 - 6 NYCRR Part 621
 - o 6 NYCRR Part 750
 - o 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 guick 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(I)
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	NYCRR 750-2.1(i)
Request for Additional Information	

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

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

Interstate Water Pollution Control Agencies

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

Existing Effluent Quality

The existing effluent quality is determined from a statistical evaluation of effluent data in accordance with TOGS 1.2.1 and the USEPA Office of Water, <u>Technical Support Document for Water Quality-based Toxics Control</u>, 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 <u>Pollutant Summary Table</u> 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(*I*) 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 law⁸ and USEPA interpretation⁹ 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.

⁸ American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)

⁹ 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)

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Antidegradation Policy

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

Effluent Limitations

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

Technology-based Effluent Limitations (TBELs)

CWA sections 301(b)(1)(B) and 304(d)(1), 40 CFR 133.102, ECL section 17-0509, and 6 NYCRR 750-1.11 require technology-based controls, known as secondary treatment. These and other requirements are summarized in TOGS 1.3.3. Where the TBEL is more stringent than the WQBEL, the TBEL is applied as a limit in accordance with TOGS 1.3.3. Equivalent secondary treatment, as defined in 40 CFR 133.105, allow for effluent limitations of the more stringent of the consistently achievable concentrations or monthly/weekly averages of 45/65 mg/l, and the minimum monthly average of at least 65% removal. Consistently achievable concentrations are defined in 40 CFR 133.101(f) as the 95th percentile value for the 30-day (monthly) average effluent quality achieved by the facility in a period of two years. The achievable 7-day (weekly) average value is equal to 1.5 times the 30-day average value calculated above. Equivalent secondary treatment applies to those facilities where the principal treatment process 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

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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.

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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.
- 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

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requirements for the facility. Monitoring frequency is based on the minimum sampling necessary to adequately monitor the facility's performance and characterize the nature of the discharge of the monitored flow or pollutant. Variable effluent flows and pollutant levels may be required to be monitored at more frequent intervals than relatively constant effluent flow and pollutant levels (6 NYCRR 750-1.13). For industrial facilities, sampling frequency is based on guidance provided in TOGS 1.2.1. For municipal facilities, sampling frequency is based on guidance provided in TOGS 1.3.3.

Other Conditions

Mercurv

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

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

Schedules of Compliance

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

Schedule(s) of Additional Submittals

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

Mini Industrial Pretreatment Program

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

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