

# State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code: <b>4952</b>	NAICS Code:	221320		SPDES Number:	NY0248720	
Discharge Class (CL):	07		DEC Number:	5-5240-00030/00001		
Toxic Class (TX):	N		Effective Date (EDP):	TBD		
Major-Sub Drainage Basin:	11 - 04		Expiration Date (ExDP):	TBD		
Water Index Number:	ter Index Number: H-391 Item No.: 941.6 – 890.1		Modification Dates (EDPM):	N/A		
Compact Area: -						

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

PERMITTEE NAME AND ADDRESS						
Name:	Town of Warrensburg	Attention: Taxon Supervisor				
Street:	3797 Main Street		Town Supervisor			
City:	Warrensburg	State:	NY	Zip Code:	12885	
Email:	info@warrensburgny.us	Phone:	(518) 6	23-4561		

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL																	
Name:	Town	own of Warrensburg Wastewater Treatment Plant															
Address / Location:	509 St	09 State Route 418 County: Warren															
City:	Warrer	nsburg							State:	NY	Zip Code	Zip Code:		12885			
Facility Location:		Latitude:		43	0	28	,	47	" N	& Longitude:	73	0		47	,	58	"W
Primary Outfall No.:	001	Latitude:		43	0	28	,	57	" N	& Longitude:	73	0		48	,	03	" W
Outfall Description:	Treated Sanitary Receiving Water: S			Schroon River			Class:		;	Sta	anda	ard:	C(T)				

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

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

DISTRIBUTION: BWP Permit Coordinator	Permit Administrator:				
BWP Permit Writer RWE	Address:	232 Golf Course	2 Golf Course Road, Warrensburg, NY 12885		
RPA EPA Region II NYSEFC	Signature:		Date:		

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# **DEFINITIONS**

The highest allowable geometric mean of daily discharges over a calendar week.  The average of all daily discharges for each 7-days in the monitoring period. The sam measurement is the highest of the 7-day averages calculated for the monitoring period.  The current monthly value of a parameter, plus the sum of the monthly values over the previous of the 11 months for that parameter, divided by the number of months for which samples we collected in the 12-month period.  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 calend month divided by the number of daily discharges measured during that month.  Action Level  Action level means a monitoring requirement characterized by a numerical value that, when exceeded, triggers additional permittee actions and DEC review to determine if numerical effluent limitations should be imposed.  Compliance Level / Minimum Level  A compliance level is an effluent limitation. A compliance level is given when the water quality method as given in 40 CFR Part 136, or otherwise accepted by the DEC.
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 of 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 calend month divided by the number of daily discharges measured during that month.  Action Level  Action level means a monitoring requirement characterized by a numerical value that, when exceeded, triggers additional permittee actions and DEC review to determine if numerical effluent limitations should be imposed.  Compliance Level / Minimum Level  A compliance level is an effluent limitation. A compliance level is given when the water qual evaluation specifies a Water Quality Based Effluent Limit (WQBEL) below the Minimum Level The compliance level shall be set at the Minimum Level (ML) for the most sensitive analytic
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Minimum Level evaluation specifies a Water Quality Based Effluent Limit (WQBEL) below the Minimum Level. The compliance level shall be set at the Minimum Level (ML) for the most sensitive analytic
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 chemical, physical, biological, and other constituents of effluents that are discharged in waters of the state.
Expiration Date of The date this permit is no longer in effect. Permit (ExDP)
Instantaneous The maximum level that may not be exceeded at any instant in time.  Maximum
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 measurement for the reporting period mea
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 SPDE 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)	Schroon River	EDP	ExDP

	EFF					MONITORING REQUIREMENTS				
PARAMETER								Loca	ation	FN
	Туре	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	
Flow	Monthly Average	0.25	MGD			Continuous	Meter		Х	
-11	Daily Minimum	6.0	SU			Daile	Onak		\ \ \	
рН	Daily Maximum	9.0	SU			Daily	Grab		Х	
Temperature	Daily Maximum	Monitor	°F			Daily	Grab		Х	
BOD₅	Monthly Average	30	mg/L	62.5	lbs/d	Monthly	6-hr. Comp.	X	X	1
BOD <sub>5</sub>	7-Day Average	45	mg/L	93.8	lbs/d	Monthly	6-hr. Comp.		Х	
Total Suspended Solids (TSS)	Monthly Average	30	mg/L	62.5	lbs/d	Monthly	6-hr. Comp.	Х	Х	1
Total Suspended Solids (TSS)	7-Day Average	45	mg/L	93.8	lbs/d	Monthly	6-hr. Comp.		Х	
Settleable Solids	Daily Maximum	0.1	mL/L			Daily	Grab		Х	
Ammonia (as N)	Daily Maximum	Monitor	mg/L			Monthly	6-hr. Comp.		Х	
Total Phosphorus (as P)	Daily Maximum	Monitor	mg/L		lbs/d	Monthly	6-hr. Comp.		Х	
Total Mercury	12 MRA	12	ng/L			2/Year	Calculated	Х	Х	2
Total Mercury	Daily Maximum	50	ng/L			2/Year	Grab	Х	Х	
EFFLUENT DISINFECTION Required Seasonal from May 1	st - October 31st	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Coliform, Fecal	30-Day Geometric Mean	200	No./ 100 mL			Monthly	Grab		Х	
Coliform, Fecal	7-Day Geometric Mean	400	No./ 100 mL			Monthly	Grab		х	
Chlorine, Total Residual	Daily Maximum	0.17	mg/L			Daily	Grab		Х	3

#### **FOOTNOTES:**

- 1. Effluent shall not exceed 15% and 15% of influent concentration values for BOD<sub>5</sub> & TSS respectively.
- 2. The 12-month rolling average is defined as the sum of the current semi-annual daily maximum concentration added to the previous semi-annual sample, divided by the number of samples that were collected in the 12-month period.
- 3. Sampling and reporting for total residual chlorine are only necessary if chlorine is used for disinfection, elsewhere in the treatment process, or the facility otherwise has reasonable potential to discharge chlorine. Otherwise, the permittee shall report NODI-9 on the DMR.

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# MERCURY MINIMIZATION PROGRAM (MMP) - Type II

- 1. <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.
- 2. MMP Elements The MMP must be a written document and must include any necessary drawings or maps of the facility and/or collection system. Other related documents already prepared for the facility may be used as part of the MMP and may be incorporated by reference. At a minimum, the MMP must include the following elements as described in detail below:
  - a. <u>Monitoring</u> Monitoring at Outfall, influent and other locations tributary to compliance points shall be performed using either USEPA Method 1631 or another sufficiently sensitive method, as approved under 40 CFR Part 136<sup>1</sup>. 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 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 permit includes reduced monitoring requirements and does not require key location sampling. See section 2.a.iv below.
- 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,<sup>2</sup> must receive approval from the DEC prior to acceptance.
- iv. <u>Decreased Monitoring Requirements</u> The permittee has an EEQ at or below 12 ng/L and the permit includes the following requirements:
  - 1) Reduced requirements
    - a) Conduct influent monitoring, sampling semi-annually, in lieu of monitoring within the collection system, such as at *key locations*; and
    - b) Conduct effluent compliance sampling semi-annually.
  - 2) If a facility with reduced requirements reports discharges above 12 ng/L for two of four consecutive effluent samples, the DEC 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).
- b. <u>Control Strategy</u> 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.

<sup>&</sup>lt;sup>1</sup> Outfall monitoring must be conducted using the methods specified in Table 8 of DOW 1.3.10.

<sup>&</sup>lt;sup>2</sup>A level of 0.2 mg/L (200,000 ng/L) or more is considered hazardous per 40 CFR Part 261.11. 500 ng/L is used here to alert the permittee that there is an unusual concentration of mercury and that it will need to be managed appropriately.

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

- 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,<sup>3</sup> which informs users of their responsibilities, and collect the "Amalgam Waste Compliance Report for Dental Dischargers"<sup>4</sup> form, as needed, to satisfy the inspection requirements. The permittee must conduct the outreach program at least once every five years and ensure the "Amalgam Waste Compliance Report for Dental Dischargers" are submitted by new users, as necessary. The outreach program could be supported by a subset of site inspections.
- 3. A file shall be maintained containing documentation demonstrating compliance with 2.b.ii.2)a) above. This file shall be available for review by DEC representatives and copies shall be provided upon request.
- b) Other potential mercury sources
  - 1. The permittee must maintain an inventory of other *potential mercury sources*.
  - 2. The permittee must inspect other *potential mercury sources* once every five years. Alternatively, the permittee may develop and implement an outreach program which informs users of their responsibilities as *potential mercury sources*. The permittee must conduct the outreach program at least once every five years. The outreach program should be supported by a subset of site inspections.
  - 3. A file shall be maintained containing documentation demonstrating compliance with 2.b.ii.2)b) above. This file shall be available for review by DEC representatives and copies shall be provided upon request.
- iii. <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(s) 001
    - 1) If the permittee meets the criteria for MMP Type IV, the permittee must notify the DEC for a permittee-initiated modification;
  - iii. All actions undertaken, pursuant to the control strategy, during the previous reporting period;
  - iv. Actions planned, pursuant to the control strategy, for the upcoming reporting period; and
  - v. Progress towards achieving a dissolved mercury concentration of 0.70 ng/L in the effluent (e.g., summarizing reductions in effluent concentrations as a result of the control strategy implementation and/or installation/modification of a treatment system).

https://www.dec.ny.gov/docs/water\_pdf/dentalform.pdf

<sup>&</sup>lt;sup>3</sup> For example, the outreach program could include education about sources of mercury and what to do if a mercury source is found.

<sup>&</sup>lt;sup>4</sup> The form, "Amalgam Waste Compliance Report for Dental Dischargers," can be found here:

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

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

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

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

#### **DEFINITIONS:**

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

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



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#### DISCHARGE NOTIFICATION REQUIREMENTS

- (a) The permittee shall install and maintain identification signs at all outfalls to surface waters listed in this permit, unless the Permittee has obtained a waiver in accordance with the Discharge Notification Act (DNA). Such signs shall be installed before initiation of any new discharge location.
- (b) Subsequent modifications to or renewal of this permit does not reset or revise the deadline set forth in (a) above, unless a new deadline is set explicitly by such permit modification or renewal.
- (c) The Discharge Notification Requirements described herein do not apply to outfalls from which the discharge is composed exclusively of storm water, or discharges to ground water.
- (d) The sign(s) shall be conspicuous, legible and in as close proximity to the point of discharge as is reasonably possible while ensuring the maximum visibility from the surface water and shore. The signs shall be installed in such a manner to pose minimal hazard to navigation, bathing or other water related activities. If the public has access to the water from the land in the vicinity of the outfall, an identical sign shall be posted to be visible from the direction approaching the surface water.

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

N.Y.S. PERMITTED DISCHARGE POINT
SPDES PERMIT No.: NY
OUTFALL No. :
For information about this permitted discharge contact:
Permittee Name:
Permittee Contact:
Permittee Phone: ( ) - ### - ####
OR:
NYSDEC Division of Water Regional Office Address:
NYSDEC Division of Water Regional Phone: ( ) - ### - ####

- (e) Upon request, the permittee shall make available electronic or hard copies of the sampling data to the public. In accordance with the RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS page of your permit, each DMR shall be maintained (either electronically or as a hard copy) on record for a period of five years.
- (f) The permittee shall periodically inspect the outfall identification sign(s) in order to ensure they are maintained, are still visible, and contain information that is current and factually correct. Signs that are damaged or incorrect shall be replaced within 3 months of inspection.

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# MONITORING LOCATIONS

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

Influent: Channel prior to mechanical bar screen

Effluent: Channel after ultraviolet (UV) disinfection system



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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

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

#### C. Operation and Maintenance

Proper Operation & Maintenance
 Bypass
 Upset
 NYCRR 750-2.8
 NYCRR 750-1.2(a)(17), 2.8(b) & 2.7
 NYCRR 750-1.2(a)(94) & 2.8(c)

#### D. Monitoring and Records

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

#### E. Reporting Requirements

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

#### F. Planned Changes

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

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

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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 DEC, and shall comply with all applicable requirements of ECL 72-0602 and 6 NYCRR Parts 480, 481 and 485. Note that if there is inconsistency between the fees specified in ECL 72-0602 and 6 NYCRR Part 485, the ECL 72-0602 fees govern.

#### I. Water Treatment Chemicals (WTCs)

New or increased use and discharge of a WTC requires prior DEC review and authorization. At a minimum, the permittee must notify the DEC in writing of its intent to change WTC use by submitting a completed *WTC Notification Form* for each proposed WTC. The DEC will review that submittal and determine if a SPDES permit modification is necessary or whether WTC review and authorization may proceed outside of the formal permit administrative process. The majority of WTC authorizations do not require SPDES permit modification. In any event, use and discharge of a WTC shall not proceed without prior authorization from the DEC. Examples of WTCs include biocides, coagulants, conditioners, corrosion inhibitors, defoamers, deposit control agents, flocculants, scale inhibitors, sequestrants, and settling aids.

- WTC use shall not exceed the rate explicitly authorized by this permit or otherwise authorized in writing by the DEC.
- 2. The permittee shall maintain a logbook of all WTC use, noting for each WTC the date, time, exact location, and amount of each dosage, and, the name of the individual applying or measuring the chemical. The logbook must also document that adequate process controls are in place to ensure that excessive levels of WTCs are not used.
- 3. The permittee shall submit a completed WTC Annual Report Form each year that they use and discharge WTCs. This form shall be submitted in electronic format and attached to either the December DMR or the annual monitoring report required below. The WTC Notification Form and WTC Annual Report Form are available from the DEC's website at: <a href="http://www.dec.ny.gov/permits/93245.html">http://www.dec.ny.gov/permits/93245.html</a>

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# RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

- A. The monitoring information required by this permit shall be retained for a period of at least five years from the date of the sampling for subsequent inspection by the DEC or its designated agent.
- B. <u>Discharge Monitoring Reports (DMRs):</u> Completed DMR forms shall be submitted for each 1 month reporting period in accordance with the DMR Manual available on DEC's website.

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

Phone: (518) 402-8111

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 5
232 232 Golf Course Road, Warrensburg, New York, 12885-1172 Phone: (518) 623-1200

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

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

	SCHEDULE OF ADDITIONAL SUBMITTALS	
Outfall(s)	Required Action	Due Date
	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 DEC during this time that sampling can be discontinued. Samples must be analyzed utilizing EPA 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 DEC indicates otherwise.	EDP + 18 months
001	Emerging Contaminants results must be reported utilizing the template provided and should be kept on file with the permittee until all 4 sampling event results are obtained. Once all 4 sampling event results are received, they shall be reported together to the DEC through the "Emerging Contaminants Survey for POTWs" found at: <a href="Emerging Contaminants In NY's Waters - NYSDEC">Emerging Contaminants In NY's Waters - NYSDEC</a> . The template, instructions for the laboratory, and chain of custody form are also available at this link.	
	If results indicate the presence of Emerging Contaminants, the permittee shall initiate track down of potential sources by completing the "Emerging Contaminants Investigation Checklist for POTWs" available at the above link.  The DEC may periodically request updates or additional monitoring to check progress on track down investigations. Elements of the checklist may be used as permit conditions in future permit modifications.	Within 90 days of DEC written notification
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 submitted with the annual monitoring report.	
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 <sup>th</sup> )
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

#### 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.

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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.



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Date: November 26, 2024 v.1.25 Permit Writer: Kristopher LaPan

Water Quality Reviewer: Edward Schneider

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# SPDES Permit Fact Sheet Town of Warrensburg Warrensburg Wastewater Treatment Plant NY0248720



Permittee: Town of Warrensburg Facility: Warrensburg Wastewater Treatment Plant

SPDES Number: NY0248720

USEPA Non-Major/Class 07 Municipal

Date: November 26, 2024 v.1.25 Permit Writer: Kristopher LaPan

Water Quality Reviewer: Edward Schneider Full Technical Review

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# Summary of Permit Changes

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

- Updated permit format, definitions, and general conditions
- Added daily max semi-annual limit for Mercury of 50 ng/L
- Added 12-month rolling average limit for Mercury of 12 ng/L
- Added daily max monthly monitoring requirement for Phosphorous
- Added daily max monthly monitoring requirement for Ammonia
- Changed monthly average limit for Total Suspended Solids (TSS) from 70 mg/L to 30 mg/L
- Changed monthly average limit for TSS from 146 lbs/d to 62.5 lbs/d
- Changed 7-day average limit for TSS from 105 mg/L to 45 mg/L
- Changed 7-day average limit for TSS from 219 lbs/d to 93.8 lbs/d
- Changed limit for Settleable Solids from 0.3 mL/L to 0.1 mL/L
- Changed limit for Total Residual Chlorine from 2.0 mg/L to 0.17 mg/L
- Added requirement for mercury minimization program
- Added requirement for emerging contaminant monitoring

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

# Administrative History

5/1/1992

The last full technical review was performed and the SPDES permit became effective with a new five-year term and expiration date of 5/1/1997. The 1992 permit, along with all subsequent modifications, has formed the basis of this permit.

The permit was administratively renewed in 1996, 2001, 2006, 2011, 2017 and again in 2022. The current permit administrative renewal is effective until 4/30/2027.

1/19/2007 Permit was modified to include seasonal effluent disinfection requirements.

1/25/2023 DEC issued a Request for Information (RFI) to modify and renew the SPDES permit due to the facility's EBPS score<sup>1</sup>. At the time of the RFI, the facility had an

EBPS score of 227 and ranking of 10.

8/22/2023 The Town of Warrensburg submitted a NY-2A permit application.

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

<sup>&</sup>lt;sup>1</sup> Pursuant to 6 NYCRR 750-1.18 and NYS Environmental Benefit Permit Strategy (EBPS)

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# **Facility Information**

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

The current 0.25 MGD treatment plant consists of:

- Preliminary Treatment: Mechanically Cleaned Bar Screen
- Primary Treatment: Two (2) Lagoons
- Secondary Treatment: Two (2) Lagoons
- Tertiary Treatment: Two (2) Continuous Backwash Sand Filters
- Disinfection: Ultraviolet Light

Sludge is periodically removed from the lagoons. The most recent removal was completed in November 2023.

The primary outfall (Outfall 001) extends approximately five feet from the bank into the Schroon River and consists of a 12-inch pipe submerged at normal flow conditions.

The facility accepts wastewater from the following municipalities:

- 1		<u> </u>	
	Municipality	POSS # or SPDES #	Collection System
	Town of Warrensburg	NY0248720	Separate

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#### Site Overview <u>Aerial</u>



Facility: Warrensburg Wastewater Treatment Plant

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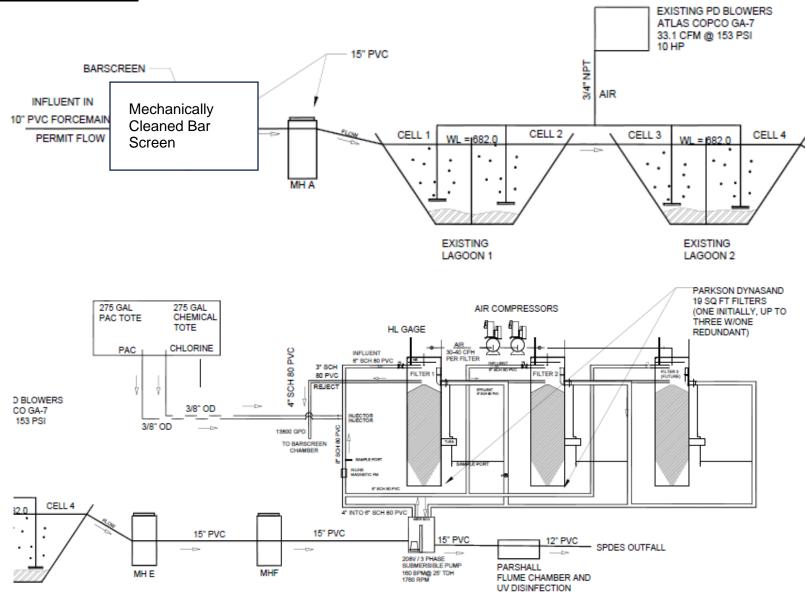
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#### **Treatment System Schematic**



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#### **Enforcement History**

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

#### **Existing Effluent Quality**

The <u>Pollutant Summary Table</u> presents the existing effluent quality and effluent limitations. The existing effluent quality was determined from the application submitted by the permittee for the period June 2022 to June 2023.

# **Receiving Water Information**

The facility discharges via the following outfalls:

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

**Reach Description:** Schroon River (H-391) is a tributary of the Hudson River. The segment of Schroon River at the point of discharge is classified as C (6 NYCRR 941.6 – Item 890.1). The point of discharge is approximately 0.75 miles upstream of its confluence with the Hudson River, Class C (6 NYCRR 941.6 – Item 9).

Facility: Warrensburg Wastewater Treatment Plant

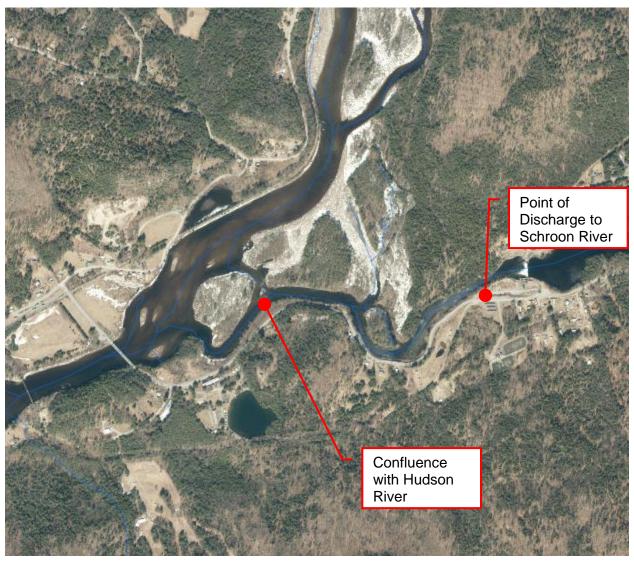
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See the Outfall and Receiving Water Summary Table and Appendix for additional information.

#### Critical Receiving Water Data & Mixing Zone

The low flow condition for the Schroon River was obtained from a drainage basin ratio analysis with USGS gage station 01317000, Schroon River located Riverbank NY. The 1Q10, 7Q10 and 30Q10 flows at the gage were found from the USGS Hydrologic Toolbox software and an analysis of data from 1926 to 1970.

The low flows at the facility location were found from a drainage basin ratio analysis and are shown below.

Gage Name: Schroon River located Riverbank NY

Gage ID: 01317000

Drainage Area at Gage (mi<sup>2</sup>): 527 Drainage Area at Facility (mi<sup>2</sup>): 564

1Q10 Flow at Gage (CFS): 51.9 Source: Hydrologic Toolbox 7Q10 Flow at Gage (CFS): 55.3 Source: Hydrologic Toolbox 30Q10 Flow at Gage (CFS): 71.5 Source: Hydrologic Toolbox

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Calculated 1Q10 Flow at Facility (CFS): 55.5 Calculated 7Q10 Flow at Facility (CFS): 59.1 Calculated 30Q10 Flow at Facility (CFS): 76.5

Consistent with TOGS 1.3.1, the outfall information submitted in the application and mixing zone from was used to develop a mixing zone model to establish dilution ratios for the water quality analysis. The model showed the outfall is not conducive to mixing due to the presence of wake flow conditions and some lateral bank/shore interactions occurring.

	Outfall No.	Acute Dilution Ratio A(A)	Chronic Dilution Ratio A(C)	Human, Aesthetic, Wildlife Dilution Ratio (HEW)	Basis
Ī	001	9.1	31.4	32.7	CORMIX

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

# Permit Requirements

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

#### USEPA Effluent Limitation Guidelines (ELGs) Applicable to Facility

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

#### Whole Effluent Toxicity (WET) Testing

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

#### Anti-backsliding

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

#### Appendix Link

#### Antidegradation

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

<sup>&</sup>lt;sup>2</sup> As promulgated under 40 CFR Parts 405 - 471

<sup>&</sup>lt;sup>3</sup> As prescribed by 6 NYCRR Part 617

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#### 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.

#### Temperature Requirements for Municipal Discharges to Trout Streams

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

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

#### Mercury<sup>4</sup>

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

The facility is not within the Great Lakes Basin, has a mercury source, is an EPA Minor, Class 07, POTW with a design flow <1 MGD, and the permit includes requirements for the implementation of MMP Type II.

Based on 3 data point(s) of 8.7, 1.0, and 1.3 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)

#### **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 DEC Division of Water web page: <a href="https://www.dec.ny.gov/chemical/127939.html">https://www.dec.ny.gov/chemical/127939.html</a>.

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

<sup>&</sup>lt;sup>4</sup> In accordance with DOW 1.3.10 Mercury – SPDES Permitting & Multiple Discharge Variance (MDV), December 30, 2020.

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

The DEC 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 DEC 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 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
- Mercury Minimization Plan

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### **OUTFALL AND RECEIVING WATER SUMMARY TABLE**

					Water Index No. /	Major /					Critical	Dil	ution R	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	43° 28' 57" N	73° 48' 03" W	Schroon River	C(T)	H-391 PWL: 1104-0023	11/01	-	35.9	38.2	49.4	0.25	9.1	31.4	32.7

#### POLLUTANT SUMMARY TABLE

#### Outfall 001

Outfall #	001	Description	of Was	tewater: T	reated Sanita	ary Sewage	e								
Type of Treatment: Mechanically Cleaned Screening, Lagoons, Sand Filtration, Ultraviolet Disinfection															
			Exist	ing Discha	rge Data	-	TBELs		Wa	ater Quality	Data & W	QBELs			Decis for
Effluent Parameter	Units	Averaging Period	Permit Limit	Existing Effluent Quality <sup>5</sup>	# 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
<b>General Notes:</b> Existing discharge data from June 2022 to June 2023 was obtained from the application 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 30 Day Avg 0.25 Actual Average 365 0.25 Design Flow Sages. 703.2							-	Design Flow						
	The flo	w limit is set	at the de	sign flow o	f the wastew	ater treatm	ent facility.								
рН	SU	Minimum	6	7.11 Actual Min	365	6.0	40 CFR	7.5 <sup>6</sup>		6.5 – 8.5	Pango	See note			TBEL
		Maximum	9	7.62 Actual Max	365	9.0	133.102	7.5	-	(703.3)	Range	below	_	-	IDEL
	Consis the WC		GS 1.3.3	for POTW	s, TBELs refl	ect second	ary treatment sta	andards. G	iven the ava	ailable diluti	on, an efflu	uent limitation	equal to the	e TBE	L is protective of

<sup>&</sup>lt;sup>5</sup> Existing Effluent Quality: Unless otherwise stated, Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)

<sup>&</sup>lt;sup>6</sup> Ambient pH calculated from RIBs station 11-SCHR-3.2, using 13 samples collected from 1993-2021.

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Outfall #	001	Description	of Was	tewater: T	reated Sanit	ary Sewage	)								
Outrail #	001	Type of Tre	atment:	Mechanic	ally Cleaned	Screening,	Lagoons, Sand	iltration, l	Jitraviolet D	isinfection					
			Exist	ing Discha	rge Data		TBELs	Water Quality Data & WQBELs							Basis for
Effluent Parameter	Units	Averaging Period	Permit Limit	Existing Effluent Quality <sup>5</sup>	# 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
Temperature	°F	Daily Max	Monitor	77.9 Actual Max	365	Monitor	750-1.13	-	stream sha at any poir lowered to	nt and sha more than	ised to mo all not be ra 5F over th	re than 90F aised or	-	-	Monitor
	Consis permit.		YCRR 75	50-1.13(a),	monitoring is	s required a	and may be used	to inform f	future permi	itting decision	ons. This r	equirement is	continued	from t	he previous
Dissolved Oxygen (DO)	mg/L	Daily Min	-	6.6	4	-	-	-	7.42 Critical Point	4.0 n (703		-	-	-	No Limitation
(DO)	The model showed that DO standards are maintained and consequently WQBELs for DO, BOD and Ammonia are unnecessary and the TBELs are protective of wat quality.														
5-day	mg/L	Monthly Avg	30	5.9	12/0	30	40 CFR 133.102					30			
Biochemical		7 Day Avg	45	-	-	45	40 CFR 133.102		1	4.0 mg/L-DO Surrogate Standard for BOD (703.3)	<b>\</b>	45	-	-	
Oxygen	lbs/d	Monthly Avg	62.5	22.3	12/0	62.5	-	-				62.5			TBEL
Demand		7 Day Avg	93.8	-	-	93.8	-					93.8			
(BOD <sub>5</sub> )	% Rem	Minimum	85	90	12	85	40 CFR 133.102					-			
	The do TOGS The moquality.	the model enwnstream Dong 1.3.1D)), Efflodel showed	ds. O concer uent UOI that DO	ntration wa D = 135 m standards	as modeled u g/L (WQ Mod are maintain	using the St del), Effluen ned and co	Varrensburg SD # reeter-Phelps ed t BOD <sub>5</sub> = 45 mg/	uations wi L (WQ Mo	ith the follow	wing inputs nt NOD = 90	: Effluent [ 0 mg/L (W	DO = 2.0 mg/ Q Model).	l ((assumed	d value	e consistent wit

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Outfall #	utfall # Description of Wastewater: Treated Sanitary Sewage														
Outrail #	001	Type of Tre	atment:	Mechanic	ally Cleaned	Screening,	Lagoons, Sand	Filtration, L	Jltraviolet D	isinfection					
			Exist	ing Discha	rge Data		TBELs		Wa	ter Quality	Data & W	QBELs			Danie fan
Effluent Parameter	Units	Averaging Period	Permit Limit	Existing Effluent Quality <sup>5</sup>	# of Data Points Detects / Non- Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	,   VVQ Std.   VVQ   Calc.   Basis to	Basis for WQBEL	ML	Basis for Permit Requirement		
Total	mg/L	Monthly Avg	70	8.1	12/0	30	40 CFR 133.102								
Suspended		7 Day Avg	105	-	-	45	40 CFR 133.102			om sewage					
Solids (TSS)	lbs/d	Monthly Avg	146	18.1	12/0	62.5	-	] -		he waters f	or their be	eposition or st usages.	-	-	TBEL
		7 Day Avg	219	-	-	93.8	-			<u>(70</u>	<u>)3.2)</u>				
	% Rem	Minimum	85	90	12	85	40 CFR 133.102								
	solids o		ed, there	efore TBEL	s reflect sec	ondary trea	Ws, existing efflatment standards								
l	1.000							None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages  (703,2)							
Settleable Solids	mL/L	Daily Max	0.3	0.3	364	0.1	TOGS 1.3.3	-	other wa	stes that with	II cause do or their be	eposition or	Ξ	-	TBEL
	mL/L Consis	-	GS 1.3.3	the effluer	it limitation is		TOGS 1.3.3 e TBEL of 0.1 m	- L/L for PO	other wa impair t	stes that with the steed that with the steed to the steed that the	II cause de or their be	eposition or st usages	= on. Given th	- nat ade	
	mL/L Consis	tent with TO	GS 1.3.3	the effluer	it limitation is			- L/L for PO <sup>-</sup> 0.082	other wa impair t	stes that with the steed that with the steed to the steed that the	II cause de or their be	eposition or st usages	- on. Given th	at add	
Solids  Nitrogen, Ammonia	mL/L Consis availab mg/L The WG	tent with TOO le the TBEL Daily Max QBEL was do 3.2). The am	3S 1.3.3 is protect - eveloped monia st	the effluentive of the volume	it limitation is WQS.  3/0  ying ammonis determined	Monitor  a WQS and dusing a ph	e TBEL of 0.1 m 750-1.13 I HEW-based dil H of 7.5 SU - 80 <sup>th</sup>	0.082 ution and compercentile	other wa impair to the state of pH data	stes that withe waters for the water for	Il cause do their be 03.2) ary treatme  A(C)	eposition or st usages ent and filtration 36.6	703.5 f the discha	- arge (F	equate dilution is  Monitor  RIBs station 11-
Solids  Nitrogen, Ammonia	mL/L Consis availab mg/L The WG	tent with TOO le the TBEL Daily Max QBEL was do 3.2). The am	3S 1.3.3 is protect - eveloped monia st	the effluentive of the volume	it limitation is WQS.  3/0  ying ammonis determined	Monitor  a WQS and dusing a ph	e TBEL of 0.1 m 750-1.13 HEW-based dil	0.082 ution and compercentile	other wa impair to the impair	stes that withe waters for the waters for the	Il cause do or their be 03.2)  ary treatment A(C)  Immonia lev 0-GCHZ6  will result mes that w	eposition or st usages ent and filtration 36.6 el upstream of 6,6 and a tem in growths of fill impair the	703.5 f the discha	- arge (F	equate dilution is  Monitor  RIBs station 11-
Nitrogen, Ammonia (as N)	mL/L Consis availab mg/L The W0 SCHR- TOS 1.	Daily Max  QBEL was de 3.2). The am 3. 3E. To hell  Daily Max	eveloped monia st p with fu	the effluentive of the 10.4  by multiply andard wature permit	it limitation is WQS.  3/0  ying ammonis determined writing deci	Monitor  a WQS and dusing a phosion as per	e TBEL of 0.1 m  750-1.13  HEW-based dil H of 7.5 SU - 80 <sup>th</sup> 750-1.13 monito	0.082 ution and control percentile ring will be	other wa impair to the impair	stes that withe waters for the waters for the	Il cause do or their be 03.2) The arry treatment of the control of	eposition or st usages ent and filtration 36.6 el upstream of 6,6 and a tem in growths of fill impair the	703.5 f the discha	- arge (F 25°C,	equate dilution is  Monitor  RIBs station 11- consistent with
Nitrogen, Ammonia (as N)	mL/L Consis availab mg/L The W0 SCHR- TOS 1.	Daily Max  QBEL was de 3.2). The am 3. 3E. To hell  Daily Max	eveloped monia st p with fu	the effluentive of the 10.4  by multiply andard wature permit	it limitation is WQS.  3/0  ying ammonis determined writing deci	Monitor  a WQS and dusing a phosion as per	e TBEL of 0.1 m  750-1.13  HEW-based dil H of 7.5 SU - 80 <sup>th</sup> 750-1.13 monito	0.082 ution and control percentile ring will be	other wa impair to the impair	stes that withe waters for the waters for the	Il cause do or their be 03.2) The arry treatment of the control of	eposition or st usages ent and filtration 36.6 el upstream of 6,6 and a tem in growths of fill impair the	703.5 f the discha	- arge (F 25°C,	equate dilution is  Monitor  RIBs station 11- consistent with

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045-11.4	004	Description	of Was	tewater: T	reated Sanit	ary Sewage	)								
Outfall #	001	Type of Tre	atment:	Mechanic	ally Cleaned	Screening,	Lagoons, Sand I	iltration, U	Jltraviolet D	isinfection					
			Exist	ing Discha	rge Data	٦	ΓBELs		Wa	ter Quality	Data & Wo	QBELs			Desig for
Effluent Parameter	Units	Averaging Period	Permit Limit	Existing Effluent Quality <sup>5</sup>	# 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
Coliform, Fecal	#/100 ml	30d Geo Mean 7d Geo	200	14.2	6/0	200	TOGS 1.3.3	-		onthly geon on of five ex			-	-	TBEL
		Mean	400	-	-	400	TOGS 1.3.3	-			<u>3.4)</u>				
	Consis are spe		GS 1.3.3,	effluent di	sinfection is I	required yea	ar-round because	it is neces	ssary to prot	ect public h	ealth. Fec	al coliform eff	luent limitat	ions e	qual to the TBEL
Total Residual Chlorine (TRC)	mg/L	Daily Max	2.0	0.02	3/0	2.0	TOGS 1.3.3	-	-	0.019	A(A)	0.17	703.5	-	WQBEL
		acute and chi nt and will be				e developed	d. The WQBELs	were comp	pared, and i	t was deter	mined that	the acute-ba	sed WQBE	L for T	RC was more
Additional Poll	utants l	Detected													
Solids, Total	mg/L	Daily Max	-	660	3/0	-	-	61 <sup>7</sup>	-	500	A(C)	13,846	703.3		No Limitation
Dissolved		issolved Soli ter quality sta					in the NY-2C appactsheet.	olication. B	ased on wh	at the facilit	y is discha	arging there is	no reasona	able po	otential to violate
Oil & Grease	mg/L	Daily Max	1	-	0/3	-	-	-	-	-	-	-	-	-	No Limitation
		rease was no aded in the fa		ed in the e	ffluent as rep	orted in the	NY-2C applicati	ion. No det	tections the	refore a wa	ter quality	evaluation wa	as not prefo	rmed,	and limit will not
Total Nitrogen	mg/L	Daily Max	-	21.6	3/0	-	-	-	-	-	-	-	-	-	No Limitation
		litrogen was ons is being a				ted in the N	Y-2C application.	No water	quality stan	dard exists	for this pa	rameter for C	lass C wate	erbodie	s. Therefore, no
Nitrate (as N)	mg/L	Daily Max	-	15.7	3/0	-	-	-	-	-	-	-	-	-	No Limitation
		(as N) was d ons is being a				ed in the NY	7-2C application.	No water	quality stan	dard exists	for this pa	rameter for C	lass C wate	rbodie	es. Therefore, no
Nitrite (as N)	mg/L	Daily Max	-	1.0	3/0		-	-	-	-	-	-	-	-	No Limitation
		(as N) was de ons is being a				ed in the NY	-2C application.	No water o	quality stand	dard exists	for this pa	rameter for C	lass C wate	rbodie	es. Therefore, no

<sup>&</sup>lt;sup>7</sup> Ambient Background Total Dissolved Solids (TDS) was gathered from RIBS station 11-SCHR-3.2 using the median of the 15 samples from 2002-2012. PAGE 15 OF 25

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Outfall #	001	Description	of Wast	tewater: T	reated Sanita	ary Sewage									
Outrail #		Type of Tre	atment: Mechanically Cleaned Screening, Lagoons, Sand Filtration, Ultraviolet Disinfection												
		Existing Discharge Data				٦	ΓBELs		Wa	ter Quality	Data & Wo	QBELs			Basis for
Effluent Parameter	Units	Averaging Period	Permit Limit	Existing Effluent Quality <sup>5</sup>	# 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
Total Kjeldahl Nitrogen (TKN)	mg/L	Daily Max	-	4.5	3/0	-	-	-	-	-	-	-	-	-	No Limitation
	Total K		dahl Nitrogen (TKN)was detected in the effluent as reported in the NY-2C application. No water quality standard exists for this parameter for Class C waterbodies.												

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# Appendix: Regulatory and Technical Basis of Permit Authorizations

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

#### Regulatory References

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

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

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

SPDES Permit Requirements	Regulatory Reference							
Anti-backsliding	6 NYCRR 750-1.10(c)							
Best Management Practices (BMPS) for CSOs	6 NYCRR 750-2.8(a)(2)							
Environmental Benefits Permit Strategy (EBPS)	6 NYCRR 750-1.18, NYS ECL 17-0817(4), TOGS 1.2.2 (revised							
	January 25,2012)							
Exceptions for Type I SSO Outfalls (bypass)	6 NYCRR 750-2.8(b)(2), 40 CFR 122.41							
Mercury Multiple Discharge Variance	Division of Water Program Policy 1.3.10							
	(DOW 1.3.10)							
Mixing Zone and Critical Water Information	TOGS 1.3.1 & Amendments							
PCB Minimization Program	40 CFR Part 132 Appendix F Procedure 8, 6 NYCRR 750-1.13(a)							
_	and 750-1.14(f), and TOGS 1.2.1							
Pollutant Minimization Program (PMP)	6 NYCRR 750-1.13(a), 750-1.14(f), TOGS 1.2.1							
Schedules of Compliance	6 NYCRR 750-1.14							
Sewage Pollution Right to Know (SPRTK)	NYS ECL 17-0826-a, 6 NYCRR 750-2.7							
State Administrative Procedure Act (SAPA)	State Administrative Procedure Act Section 401(2), 6 NYCRR							
	621.11(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 waste load allocation (WLA) of an EPA-approved TMDL (6 NYCRR 750-1.11(a)(5)(ii)), if applicable. In accordance with 6 NYCRR 750-1.13(a), permittees discharging to waters which are on the list but do not yet have a TMDL developed may be required to perform additional monitoring for the parameters causing the impairment. Accurate monitoring data is needed

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

#### Interstate Water Pollution Control Agencies

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

#### **Existing Effluent Quality**

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

#### Permit Requirements

#### Basis for Effluent Limitations

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

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

#### Anti-backsliding

Anti-backsliding requirements are specified in the CWA sections 402(o) and 303(d)(4), ECL 17-0809, and regulations at 40 CFR 122.44(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 fact sheet. 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.

#### 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);

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

<sup>9</sup> 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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and. (2) TOGS 1.3.9. "Implementation of the NYSDEC Antidegradation Policy – Great Lakes Basin (Supplement to Antidegradation Policy dated September 9, 1985) (undated)." The permit for the facility contains effluent limitations which ensure that the existing best usage of the receiving waters will be maintained. To further support the antidegradation policy, SPDES applications have been reviewed in accordance with the State Environmental Quality Review Act (SEQR) as prescribed by 6 NYCRR Part 617.

#### **Effluent Limitations**

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

#### Technology-based Effluent Limitations (TBELs) for Industrial Facilities

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

#### USEPA Effluent Limitation Guidelines (ELGs) Applicable to Facility

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

#### Best Professional Judgement (BPJ)

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

#### Technology-based Effluent Limitations (TBELs)

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

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proper operation and maintenance of the facility cannot meet traditional secondary treatment requirements. There are no federal technology-based standards for toxic pollutants from POTWs. A statistical analysis of existing effluent data, as described in TOGS 1.2.1, may be used to establish other performance-based TBELs.

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

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

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

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

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

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

#### Water Quality-Based Effluent Limitations (WQBELs)

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

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#### Mixing Zone Analyses

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

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

#### Critical Flows

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

#### Reasonable Potential Analysis (RPA)

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

- 1) identify the pollutants present in the discharge(s) based upon existing data, sampling data collected by the permittee as part of the permit application or a short-term high intensity monitoring program, or data gathered by the DEC;
- 2) identify water quality criteria applicable to these pollutants:
- 3) determine if WQBELs are necessary (i.e. reasonable potential analysis (RPA)). The RPA will utilize the procedure outlined in Chapter 3.3.2 of EPA's Technical Support Document (TSD). As outlined in the TSD, for parameters with limited effluent data the RPA may include multipliers to account for effluent variability; and,
- 4) calculate WQBELs (if necessary). Factors considered in calculating WQBELs include available dilution of effluent in the receiving water, receiving water chemistry, and other pollutant sources.

The DEC uses modeling tools to estimate the expected concentrations of the pollutant in the receiving water and develop WQBELs. These tools were developed in part using the methodology

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

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

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

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

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

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

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

#### Whole Effluent Toxicity (WET) Testing:

WET tests use small vertebrate and invertebrate species to measure the aggregate toxicity of an effluent. There are two different durations of toxicity tests: acute and chronic. Acute toxicity tests measure survival over a 96-hour test exposure period. Chronic toxicity tests measure reductions in survival, growth, and reproduction over a 7-day exposure. TOGS 1.3.1 includes guidance for determining when aquatic toxicity testing should be included in SPDES permits. The authority to require toxicity testing is in 6NYCRR 702.9. TOGS 1.3.2 describes the procedures which should be followed when determining whether to include

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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
- 2. There are uncertainties in the development of TMDLs, WLAs, and WQBELs, caused by inadequate ambient and/or discharge data, high natural background concentrations of pollutants, available treatment technology, and other such factors.
- There is the presence of substances for which WQBELs are below analytical detectability.
- 4. There is the possibility of complex synergistic or additive effects of chemicals, typically when the number of metals or organic compounds discharged by the permittee equals or exceeds five.
- 5. There are observed detrimental effects on the receiving water biota.
- 6. Previous WET testing indicated a problem.
- 7. POTWs which exceed a discharge of 1 MGD. Facilities of less than 1 MGD may be required to test, e.g., POTWs <1 MGD which are managing industrial pretreatment programs.

#### Minimum Level of Detection

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

#### Monitoring Requirements

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

#### Requirements for Combined Sewer Overflows (CSOs)

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

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

The 15 CSO Best Management Practices (BMPs) required by NYS under TOGS 1.6.2 are equivalent to the "Nine Minimum Control Measures" required under the USEPA National Combined Sewer Overflow policy (33 USC section 1342(q)). BMPs are technology-based requirements developed in accordance with best

<sup>[1]</sup> Available at https://www.epa.gov/sites/production/files/2015-10/documents/owm0111.pdf PAGE 23 OF 25

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professional judgement. These are largely non-structural measures which are designed to maximize pollutant capture and removal from the combined sewer system and the POTW as a whole.

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

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

#### Other Conditions

#### Mercury

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

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

There have been a number of changes to DOW 1.3.10, December 2020 (e.g., the criteria for mercury sources, the MMP Decision tree, and the MMPs themselves) which could result in less stringent effluent limitations. There are now criteria to determine if a facility has sources of mercury. Additionally, the types of MMPs have been restructured. MMP Type I is appropriate for facilities that are not sources of mercury. A similar MMP type was not included in the 2010 or 2015 versions of DOW 1.3.10. DOW 1.3.10, Figure 1, is a decision tree, which includes the criteria used to determine if a facility has source of mercury and which MMP is appropriate for a facility.

#### Schedules of Compliance

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

#### Schedule(s) of Additional Submittals

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

Best Management Practices (BMP) for Industrial Facilities

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

#### **Pollutant Minimization Programs**

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

#### Mini Industrial Pretreatment Program

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

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