

# State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code: <b>4952</b>	NAICS Code:	221320		SPDES Number:	NY0236756		
Discharge Class (CL): 07			DEC Number:	6-3038-00042/00001			
Toxic Class (TX):	N			Effective Date (EDP):	11/01/2019		
Major-Sub Drainage Basin:	08 - 01			Expiration Date (ExDP):	10/31/2024		
Water Index Number:	Ont. 19	Item No.: 805 - 5		Madification Dates (EDDM)	DDAFT		
Compact Area:	IJC			Modification Dates (EDPM):	DRAFT		

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:	own of Forestport Attention: Town Supervisor						
Street:	12012 Woodhull Road, P.O. Box 137	Allention.	Town Supervisor				
City:	Forestport	State:	NY	Zip Code:	13338		
Email:		Phone:	(315) 3	92-2801			

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL																	
Name:	Forest	prestport Wastewater Treatment Plant															
Address / Location:	River S	ver Street County: Oneida															
City:	Forest	port							State:	NY	Zip Code:			13338			
Facility Location:		Latitude:		43	0	26	,	36	" N	& Longitude:	75	0		12	,	33	" W
Primary Outfall No.:	001	Latitude:		43	o	26	,	34	" N	& Longitude:	75	o		12	,	36	" W
Outfall Description:	Treate	d Sanitary		eceivir ater:	ng			Bla	ck Rive	r	Class:		С	Sta	nda	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 Regional Water Engineer EPA Region II NYSEFC Oneida County DOH IJC

Permit Administrator:	Todd Phillips				
Address:	207 Genesee Street Utica, NY 13501-2885				
Signature		Date			

# DEFINITIONS

TERM	DEFINITION
7-Day Geo Mean	The highest allowable geometric mean of daily discharges over a calendar week.
7-Day Average	The average of all daily discharges for each 7-days in the monitoring period. The sample measurement is the highest of the 7-day averages calculated for the monitoring period.
12-Month Rolling Average (12 MRA)	The current monthly value of a parameter, plus the sum of the monthly values over the previous 11 months for that parameter, divided by the number of months for which samples were collected in the 12-month period.
30-Day Geometric Mean	The highest allowable geometric mean of daily discharges over a calendar month, calculated as the antilog of: the sum of the log of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
Action Level	Action level means a monitoring requirement characterized by a numerical value that, when exceeded, triggers additional permittee actions and department review to determine if numerical effluent limitations should be imposed.
Compliance Level / Minimum Level	A compliance level is an effluent limitation. A compliance level is given when the water quality evaluation specifies a Water Quality Based Effluent Limit (WQBEL) below the Minimum Level. The compliance level shall be set at the Minimum Level (ML) for the most sensitive analytical method as given in 40 CFR Part 136, or otherwise accepted by the Department.
Daily Discharge	The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for the purposes of sampling. For pollutants expressed in units of mass, the 'daily discharge' is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the 'daily discharge' is calculated as the average measurement of the pollutant over the day.
Daily Maximum	The highest allowable Daily Discharge.
Daily Minimum	The lowest allowable Daily Discharge.
Effective Date of Permit (EDP or EDPM)	The date this permit is in effect.
Effluent Limitations	Effluent limitation means any restriction on quantities, quality, rates and concentrations of chemical, physical, biological, and other constituents of effluents that are discharged into waters of the state.
Expiration Date of Permit (ExDP)	The date this permit is no longer in effect.
Instantaneous Maximum	The maximum level that may not be exceeded at any instant in time.
Instantaneous Minimum	The minimum level that must be maintained at all instants in time.
Monthly Average	The highest allowable average of daily discharges over a calendar month, calculated as the sum of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
Outfall	The terminus of a sewer system, or the point of emergence of any waterborne sewage, industrial waste or other wastes or the effluent therefrom, into the waters of the State.
Range	The minimum and maximum instantaneous measurements for the reporting period must remain between the two values shown.
Receiving Water	The classified waters of the state to which the listed outfall discharges.
Sample Frequency / Sample Type / Units	See NYSDEC's "DMR Manual for Completing the Discharge Monitoring Report for the SPDES" for information on sample frequency, type and units.

# PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING	
001	All Year Unless Otherwise Noted	Black River	EDPM	ExDP	

	LUENT	LIMITATI	ON		MONITORING REQUIREMENTS					
PARAMETER								Loc	ation	FN
	Туре	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	
Flow	Monthly Average	0.024	MGD			Continuous	Recorder	Х		
-11	Daily Minimum	6.0	SU			<b>E</b> AAlaak	Grah		v	1
рН	Daily Maximum	9.0	SU			5/Week	Grab		Х	1
Temperature	Daily Maximum	Monito	r ⁰C			5/Week	Grab		Х	1
BOD₅	Monthly Average	30	mg/L	6.0	lbs/d	1/Month	Grab	x	х	2
BOD₅	7-Day Average	45	mg/L	9.0	lbs/d	1/Month	Grab	х	х	
Total Suspended Solids (TSS)	Monthly Average	30	mg/L	6.0	lbs/d	1/Month	Grab	х	х	2
Total Suspended Solids (TSS)	7-Day Average	45	mg/L	9.0	lbs/d	1/Month	Grab	х	х	
Settleable Solids	Daily Maximum	0.3	mL/L			5/Week	Grab		х	1
Total Phosphorus (as P)	Monthly Average	Monito	r mg/L			1/Year	Grab		х	3
EFFLUENT DISINFECTION Required Seasonal from May	1st - October 31st	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Coliform, Fecal	30-Day Geometric Mean	200	No./ 100 mL			1/Month	Grab		x	4
Coliform, Fecal	7-Day Geometric Mean	400	No./ 100 mL			1/Month	Grab		x	4
Chlorine, Total Residual	Daily Maximum	2.0	mg/L			5/Week	Grab		х	1,4,5

## FOOTNOTES:

- 1. Sampling and analysis for pH, Temperature, Settleable Solids and Total Residual Chlorine must be made Mondays through Fridays. A visual observation of the effluent quality must be made on Saturdays and Sundays. Documentation of this observation shall be recorded on the monthly "Wastewater Facility Operation Report". If visual observation indicates that poor quality effluent is being discharged, then laboratory analysis for Settleable Solids, pH, and Temperature must be conducted and the data must be recorded on the monthly "Wastewater Facility Operation Report.
- 2. Effluent shall not exceed 15% and 15% of influent concentration values for BOD<sub>5</sub> & TSS respectively.
- 3. Annual monitoring period is from January 1<sup>st</sup> to December 31<sup>st</sup>. Monitoring results shall be reported with December's Discharge Monitoring Report (DMR).
- 4. This is a final effluent limitation. Effluent limitations and monitoring requirements are not in effect until May 1, 2026. See the schedule of compliance on page 6.
- 5. Sampling and reporting for Total Residual Chlorine are only necessary if chlorine is used for disinfection or elsewhere in the treatment process, or the facility has reasonable potential to discharge chlorine. Otherwise, the permittee shall report NODI-9 for Total Residual Chlorine on Discharge Monitoring Reports (DMRs).

# MERCURY MINIMIZATION PROGRAM (MMP)

The permittee shall inspect each tributary dental facility at least once every five years to verify compliance with the wastewater treatment operation, maintenance, and notification elements of 6NYCRR Part 374.4. In lieu of an inspection, the permittee can accept a certification from the dental facility owner that the treatment system was properly installed, and the facility complies with the wastewater treatment operation, maintenance, and notification elements of 6NYCRR Part 374.4. Prior to acceptance of new or increased tributary discharges that are industrial in nature, including hauled wastes, sample data shall be provided to the permittee for mercury content. Discharges which may exceed 500 ng/L, must receive approval from the Department prior to acceptance. A file shall be maintained containing inspection results, certifications, and other information submitted by dental offices and all other potential dischargers of mercury. This file shall be available for review by NYSDEC representatives and copies shall be provided upon request.

Note: The mercury-related requirements in this permit conform to the mercury Multiple Discharge Variance specified in NYSDEC policy DOW 1.3.10, 2015.

# DISCHARGE NOTIFICATION REQUIREMENTS

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

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

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

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

# SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

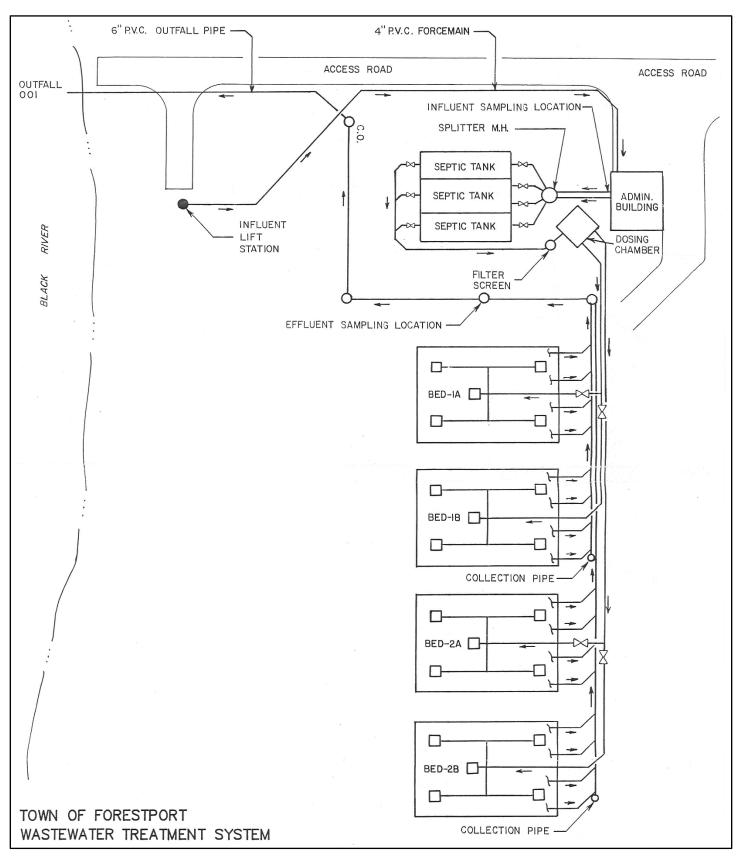
Outfall(s)	Compliance Action	Compliance Date <sup>1</sup>
001	ENGINEERING REPORT The permittee shall submit an approvable engineering report, prepared by a Professional Engineer licensed to practice engineering in New York State, detailing the designs that will be used to comply with effluent disinfection requirements and the final effluent limitations for Fecal Coliform and Total Residual Chlorine.	May 1, 2021
001	ENGINEERING PLANS / SPECIFICATIONS / SCHEDULE The permittee shall submit approvable Engineering Plans, Specifications, and Construction Schedule for the implementation of effluent disinfection.	May 1, 2022
001	BEGIN CONSTRUCTION The permittee shall begin construction of the effluent disinfection system in accordance with the Department approved schedule.	In accordance with the approved Construction Schedule
001	<u>COMPLETE CONSTRUCTION &amp; COMMENCE OPERATION</u> The permittee shall complete construction and commence operation of the effluent disinfection system and comply with the final effluent limitations for Fecal Coliform and Total Residual Chlorine.	May 1, 2026
001	INTERIM PROGRESS REPORTS The permittee shall provide interim status reports on the progress related to meeting the final effluent limitations for Fecal Coliform and Total Residual Chlorine.	May 1, 2024 February 1, 2025 November 1, 2025

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

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

# MONITORING LOCATIONS

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



# GENERAL REQUIREMENTS

A. The regulations in 6 NYCRR Part 750 are hereby incorporated by reference and the conditions are enforceable requirements under this permit. The permittee shall comply with all requirements set forth in this permit and with all the applicable requirements of 6 NYCRR Part 750 incorporated into this permit by reference, including but not limited to the regulations in paragraphs B through I as follows:

В.	General Conditions 1. Duty to comply	6 NYCRR 750-2.1(e) & 2.4
	2. Duty to reapply	6 NYCRR 750-1.16(a)
	3. Need to halt or reduce activity not a defense	6 NYCRR 750-2.1(g)
	4. Duty to mitigate	6 NYCRR 750-2.7(f)
	5. Permit actions	6 NYCRR 750-1.1(c), 1.18, 1.20 & 2.1(h)
	6. Property rights	6 NYCRR 750-2.2(b)
	7. Duty to provide information	6 NYCRR 750-2.1(i)
	8. Inspection and entry	6 NYCRR 750-2.1(a) & 2.3
	······································	
C.	Operation and Maintenance	
_	1. Proper Operation & Maintenance	6 NYCRR 750-2.8
	2. Bypass	6 NYCRR 750-1.2(a)(17), 2.8(b) & 2.7
	3. Upset	6 NYCRR 750-1.2(a)(94) & 2.8(c)
	•	
D.	Monitoring and Records	
	1. Monitoring and records	6 NYCRR 750-2.5(a)(2), 2.5(a)(6), 2.5(c)(1), 2.5(c)(2), & 2.5(d)
	2. Signatory requirements	6 NYCRR 750-1.8 & 2.5(b)
E.	Reporting Requirements	
	1. Reporting requirements	6 NYCRR 750-2.5, 2.7 & 1.17
	2. Anticipated noncompliance	6 NYCRR 750-2.7(a)
	3. Transfers	6 NYCRR 750-1.17
	4. Monitoring reports	6 NYCRR 750-2.5(e)
	5. Compliance schedules	6 NYCRR 750-1.14(d)
	6. 24-hour reporting	6 NYCRR 750-2.7(c) & (d)
	7. Other noncompliance	6 NYCRR 750-2.7(e)
	8. Other information	6 NYCRR 750-2.1(f)
	9. Additional conditions applicable to a POTW	6 NYCRR 750-2.9
F	Planned Changes	

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

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

# GENERAL REQUIREMENTS (continued)

#### G. Notification Requirement for POTWs

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

- a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA if it were directly discharging those pollutants; or
- b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
- c. For the purposes of this paragraph, adequate notice shall include information on:
  - i. the quality and quantity of effluent introduced into the POTW, and
  - ii. any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

POTWs shall submit a copy of this notice to the United States Environmental Protection Agency, at the following address:

U.S. EPA Region 2, Clean Water Regulatory Branch, 290 Broadway, 24th Floor, New York, NY 10007-1866

#### H. <u>Sludge Management</u>

The permittee shall comply with all applicable requirements of 6 NYCRR Part 360.

#### I. SPDES Permit Program Fee

The permittee shall pay to the Department an annual SPDES permit program fee within 30 days of the date of the first invoice, unless otherwise directed by the Department, and shall comply with all applicable requirements of ECL 72-0602 and 6 NYCRR Parts 480, 481 and 485. Note that if there is inconsistency between the fees specified in ECL 72-0602 and 6 NYCRR Part 485, the ECL 72-0602 fees govern.

J. <u>Water Treatment Chemicals (WTCs)</u>

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

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

# RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

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

DMRs must be submitted electronically using the electronic reporting tool (NetDMR) specified by NYSDEC. Instructions on the use of NetDMR can be found at <u>https://www.dec.ny.gov/chemical/8461.html</u>. **Hardcopy paper DMRs will only be accepted if a waiver from the electronic submittal requirements has been granted by DEC to the facility.** 

Attach the monthly "Wastewater Facility Operation Report" (form 92-15-7) and any required DMR attachments electronically to the DMR or with the hardcopy submittal.

The first monitoring period begins on the effective date of this permit, and, unless otherwise required, the reports are due no later than the 28th day of the month following the end of each monitoring period.

C. Additional information required to be submitted by this permit shall be summarized and reported to the Regional Water Engineer and Bureau of Water Permits at the following addresses:

Department of Environmental Conservation Regional Water Engineer, Region 6 207 Genesee Street, Utica, New York, 13501-2885

Department of Environmental Conservation Division of Water, Bureau of Water Permits 625 Broadway, Albany, New York 12233-3505

Phone: (518) 402-8111

Phone: (315) 793-2554

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

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

	SCHEDULE OF ADDITIONAL SUBMITTALS							
Outfall(s)	Required Action	Due Date						
001	<u>ANNUAL FLOW CERTIFICATION</u> 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> ) Each Year						
001	ANNUAL PHOSPHORUS MONITORING The permittee shall report the annual monitoring results for total phosphorus with December's DMR in accordance with PERMIT LIMITS, LEVELS AND MONITORING requirements of this permit.	December DMR (January 28 <sup>th</sup> ) Each Year						

	SCHEDULE OF ADDITIONAL SUBMITTALS						
Outfall(s)	Required Action	Due Date					
001	INTERIM PROGRESS REPORT The permittee shall provide a status update to the Regional Water Engineer for <i>Complete Construction &amp; Commence Operation</i> every nine (9) months in accordance with the SCHEDULE OF COMPLIANCE in this permit.	May 1, 2024 February 1, 2025 November 1, 2025					

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

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

# **SPDES Permit Fact Sheet**

# **Town of Forestport**

# Forestport Wastewater Treatment Plant

# NY0236756



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# SUMMARY OF PERMIT CHANGES

A State Pollutant Discharge Elimination System (SPDES) permittee-initiated permit modification has been drafted for the Forestport Wastewater Treatment Plant. The changes to the permit are summarized below:

- Extended the Compliance Schedule to implement effluent disinfection system by two years until May 1, 2026.
- Revised the effluent limit for settleable solids based on secondary treatment.
- Added a new Schedule of Submittals.

This factsheet summarizes the information used to determine the effluent limitations (limits) and other conditions contained in the permit. General background information including the regulatory basis for the effluent limitations and other conditions are in the <u>Appendix</u> linked throughout this factsheet.

# ADMINISTRATIVE HISTORY

- 11/01/2019 The last full technical review was performed and the SPDES permit became effective with a new five-year term and expiration date of 10/31/2024. The 2019 permit has formed the basis of this permit.
- 10/17/2023 The Town of Forestport submitted a request to modify the permit to extending the Compliance Schedule due date to implement effluent disinfection by 2 years to May 1, 2026, to secure additional funding for the project.

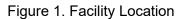
The Notice of Complete Application, published in the <u>Environmental Notice Bulletin</u> and newspapers, contains information on the public notice process.

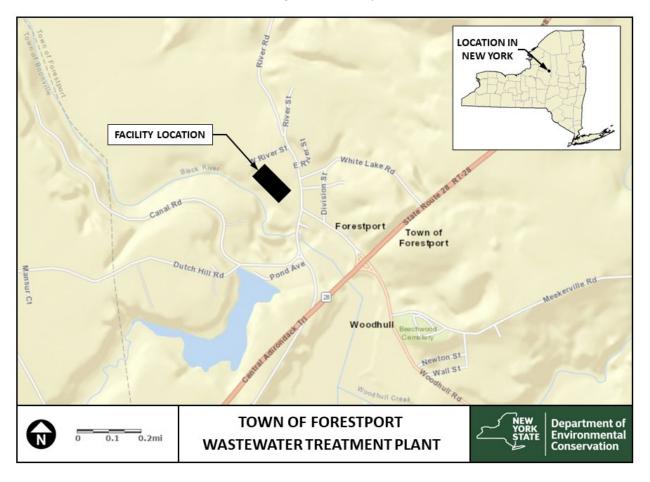
# FACILITY INFORMATION

The Town Forestport is in Oneida County, New York, about 25 miles north of the City of Utica. The Town owns and operates the Forestport Wastewater Treatment Plant that serves about 180 people within the hamlet of Forestport.

# Site Overview

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





The current treatment plant was constructed in 1993-1994 and has a design flow of 0.024 MGD. Treatment consists of an influent pump station, three 12,000-gallon septic tanks followed by four intermittent open sand filters. Sludge from the septic tank is pumped as needed and hauled by a license hauler to a regional wastewater treatment plant for processing. The 6-inch outfall pipe is encased in concrete within the streambank and extends about 30 feet in the streambed of the Black River.

The facility is planning the following upgrades/improvements:

- Implement effluent disinfection by constructing chlorine contact tanks and an associated chemical tablet feed system.
- Convert two of the gravity sand filter beds to pressure dosing to prevent freezing during winter operations.
- Replacing sand filter media in all four sand filter beds.
- System-wide electrical upgrades throughout the treatment plant.
- New backup power generator.
- Influent pump station Upgrades.
- Dutch Hill Road Pump Station Upgrades

Date: December 4, 2023 Permit Writer: Michael Bocchi, DEC Region 6 Full Technical Review: No





Figure 3. Forestport WWTP Sand Filter Beds



Date: December 4, 2023 Permit Writer: Michael Bocchi, DEC Region 6 Full Technical Review: No

# RECEIVING WATER INFORMATION

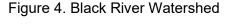
The facility discharges via the following outfalls:

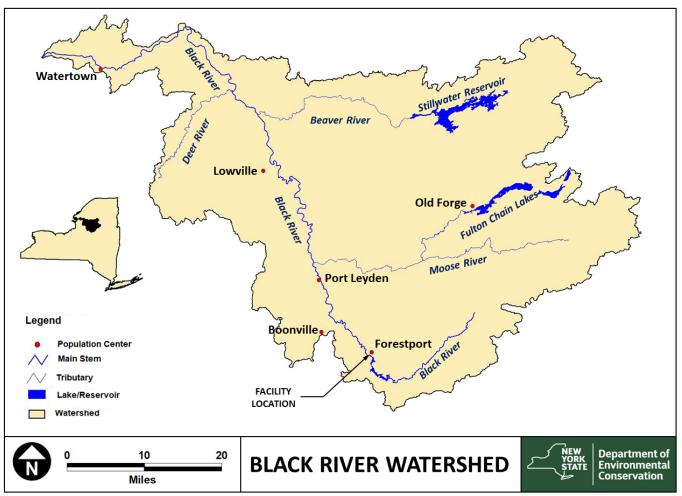
Table	1.	Outfall	Information
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Outfall No.	Design Flow (MGD)	Wastewater Type	Receiving Water
001	0.024	Treated Sanitary Sewage	Black River, Class C(T)

### **Reach Description**

The Black River flows about 125 miles and is a major tributary of Lake Ontario. The Black River watershed is in northeastern New York State and drains 1,920 square miles including the western slope of the Adirondack Mountains and the eastern edge of the Tug Hill Plateau.





The portion of the Black River at the discharge location drains 245 square miles and classified as a Class C(T) fresh surface water, is specified in 6 NYCRR Part 805, Table 1, Item 5, with a Waters Index Number (WIN) of Ont-19.

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The best usage of Class C waters is fishing. These waters shall be suitable for fish, shellfish and wildlife propagation and survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes. The symbol (T) means that the classified waters are trout waters. Any water quality standard, guidance value, or thermal criterion that specifically refers to trout or trout waters applies.

The classifications of individual surface waters are specified in 6 NYCRR Parts 800-941. The best uses and standards of quality and purity (water quality standards) applicable to specific water classes are specified in 6 NYCRR Parts 701-706.

### Impaired Waterbody Information

The Black River segment (PWL No. 0801-0038) is not listed on the 2018 <u>New York State Section 303(d)</u> <u>List</u> of Impaired/TMDL Waters, and therefore, there are no applicable wasteload allocations (WLAs) for this discharge.

# PERMIT CHANGES

The following changes to the current effective permit are being proposed.

## Schedule of Compliance

Schedules of compliance (<u>Appendix Link</u>) are authorized under 6 NYCRR 750-1.14. Schedules of compliance are intended to provide a reasonable amount of time to achieve compliance with applicable effluent standards and limitations, water quality standards, and other applicable requirements. Schedules of compliance are typically included in a permit when new or revised permit requirements based on meeting a water quality standard are added.

The current Schedule of Compliance<sup>1</sup> was added to the 2019 permit modification requiring effluent disinfection and includes the following milestones to achieve the final effluent limitations for fecal coliform and total residual chlorine:

- By May 1, 2021, the permittee shall submit an approvable engineering report, prepared by a Professional Engineer licensed to practice engineering in New York State, detailing the designs that will be used to comply with effluent disinfection requirements and the final effluent limitations for Fecal Coliform and Total Residual Chlorine.
- By May 1, 2022, the permittee shall submit approvable Engineering Plans, Specifications, and Construction Schedule for the implementation of effluent disinfection.
- By May 1, 2024, the permittee shall complete construction and commence operation of the effluent disinfection system and comply with the final effluent limitations for Fecal Coliform and Total Residual Chlorine.

The permittee has completed the first two Compliance Schedule items mentioned above. On October 17, 2023, the Town of Forestport submitted a request to modify the permit to extending the Schedule of Compliance due date to complete construction and commence operation of effluent disinfection by 2 years to May 1, 2026. The permittee feels the additional time is required to secure additional funding because the cost of the project has increased significantly due to supply chain issues, labor shortages, and inflation impacts.

NYSDEC has reviewed the information and has found the request to be reasonable, and therefore, has determined to grant the permittees request. The permittee has completed the submittal of the engineering report, and engineering plans and specifications.

The draft permit extends the Schedule of Compliance item as follows:

• By May 1, 2026, the permittee shall complete construction and commence operation of the effluent disinfection system and comply with the final effluent limitations for Fecal Coliform and Total Residual Chlorine.

## Effluent Limitations

The current effluent limitations were reviewed and were found to meet all applicable criteria. No changes to existing limits are needed except for settleable solids. NYSDEC proposes the following correction:

• A revised effluent limit for settleable solids from 0.1 ml/L to 0.3 ml/L to correct a technical mistake. Please see the <u>Anti-Backsliding</u> section for details.

# OTHER PERMIT REQUIREMENTS

The current permit was reviewed to ensure it complies with following applicable laws, regulations, and NYSDEC policy and guidance.

## Interstate Water Pollution Control Agencies

Outfall 001 is located within the Great Lakes watershed and the International Joint Commission (IJC) compact area. The IJC Great Lakes Water Quality Agreement (GLWQA), first signed in 1972, and updated in 1978, 1983, 1987, and 2012, is an agreement between the United States and Canada to restore and maintain the chemical, physical and biological integrity of the waters of the Great Lakes Basin Ecosystem.

Because the design flow of 0.024 MGD is less than 1.0 MGD, effluent limitations for phosphorus is not required under the GLWQA. The current permit requires effluent monitoring for total phosphorus to support the objectives of the IJC and TOGS 1.3.6, Phosphorus Removal Requirements for Wastewater Discharges to Lakes & Lake Watersheds. This requirement is continued. <u>Appendix Link</u>

## Whole Effluent Toxicity (WET) Testing

Consistent with TOGS 1.3.2, a reasonable potential analysis was performed, and it was determined that there is no potential that the effluent would be toxic to aquatic life after mixing with the receiving water. None of the seven criteria listed in TOGS 1.3.2 for requiring WET Testing is applicable to this facility. <u>Appendix Link</u>

## **Discharge Notification Act Requirements**

In accordance with the Discharge Notification Act (ECL 17-0815-a), the permittee is required to post a sign at each point of wastewater discharge to surface waters, unless a waiver is obtained. Additionally, the permit contains a requirement to make the DMR sampling data available to the public upon request. These requirements are continued.

## Mercury

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

Mercury is believed to be present in this discharge solely due to ambient background sources. The Mercury Minimization Program for Low Priority POTWs (DOW 1.3.10, 2015) is continued.

# Schedule(s) of Additional Submittals

A Schedule of Additional Submittals that summarizes the deliverables required by the draft permit has been included. This is new to the permit, but no new requirements are being proposed. The schedule is intended to assist and remind the permittee of the following required submittals: (<u>Appendix Link</u>)

- Annual Flow Certification by March 28th each year.
- Annual phosphorus monitoring to be reported in December's Discharge Monitoring (DMR) by January 28th each year.
- Interim progress reports required under the Schedule of Compliance.

## Anti-backsliding

In general, state and federal regulations prohibit the relaxation of effluent limitations in permits unless one of the specified exceptions applies. <u>Appendix Link</u>

The draft permit includes a proposed settleable solids technology-based effluent limitation (TBEL) of 0.3 ml/L effluent limitation compared to the current permit limitation of 0.1 ml/L.

Consistent with TOGS 1.3.3, septic tank/sand filters is considered secondary treatment should be given a TBEL 0.3 ml/L for settleable solids because the system is not equivalent to a secondary treatment system followed by filtration. POTWs with secondary treatment followed by filtration is considered tertiary treatment and typically receive the 0.1 ml/L TBEL for settleable solids.

Prior to the 2019 permit modification, the facility had settleable solids effluent limitation of 0.3 ml/L. Pursuant to 6 NYCRR Part 750-1.10(c)(2)(ii), antibacksliding is allowed if the Department determines that technical mistakes or mistaken interpretations of law were made in issuing a permit. This modification corrects a technical mistake based on a misinterpretation of Department guidance made during the 2019 permit modification.

## 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>2</sup> determination. <u>Appendix Link</u>

# Appendix: Regulatory and Technical Basis of Permit Authorizations

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

## **Regulatory References**

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

- Clean Water Act (CWA) 33 section USC 1251 to 1387
- Environmental Conservation Law (ECL) Articles 17 and 70
- Federal Regulations
  - o 40 CFR, Chapter I, subchapters D, N, and O
  - State environmental regulations
    - 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 factsheet:

SPDES Permit Requirements	Regulatory Reference
Anti-backsliding	6 NYCRR 750-1.10(c)
Best Management Practices (BMPS) for CSOs	6 NYCRR 750-2.8(a)(2)
Environmental Benefits Permit Strategy (EBPS)	6 NYCRR 750-1.18, NYS ECL 17-0817(4), TOGS 1.2.2 (revised
	January 25,2012)
Exceptions for Type I SSO Outfalls (bypass)	6 NYCRR 750-2.8(b)(2), 40 CFR 122.41
Mercury Multiple Discharge Variance	Division of Water Program Policy 1.3.10
	(DOW 1.3.10)
Mixing Zone and Critical Water Information	TOGS 1.3.1 & Amendments
PCB Minimization Program	40 CFR Part 132 Appendix F Procedure 8, 6 NYCRR 750-1.13(a)
	and 750-1.14(f), and TOGS 1.2.1
Pollutant Minimization Program (PMP)	6 NYCRR 750-1.13(a), 750-1.14(f), TOGS 1.2.1
Schedules of Compliance	6 NYCRR 750-1.14
Sewage Pollution Right to Know (SPRTK)	NYS ECL 17-0826-a, 6 NYCRR 750-2.7
State Administrative Procedure Act (SAPA)	State Administrative Procedure Act Section 401(2), 6 NYCRR
	621.11(I)
State Environmental Quality Review (SEQR)	6 NYCRR Part 617
USEPA Effluent Limitation Guidelines (ELGs)	40 CFR Parts 405-471
USEPA National CSO Policy	33 USC Section 1342(q)
Whole Effluent Toxicity (WET) Testing	TOGS 1.3.2
General Provisions of a SPDES Permit Department	NYCRR 750-2.1(i)
Request for Additional Information	

# Outfall and Receiving Water Information

## Impaired Waters

The <u>NYS 303(d) List of Impaired/TMDL Waters</u> identifies waters where specific best usages are not fully supported. The state must consider the development of a Total Maximum Daily Load (TMDL) or other strategy to reduce the input of the specific pollutant(s) that restrict waterbody uses, in order to restore and protect such uses. SPDES permits must include effluent limitations necessary to implement a WLA of an EPA-approved TMDL (6 NYCRR 750-1.11(a)(5)(ii)), if applicable. In accordance with 6 NYCRR 750-1.13(a), permittees discharging to waters which are on the list but do not yet have a TMDL developed may be required to perform additional monitoring for the parameters causing the impairment. Accurate monitoring data is needed to

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

### Interstate Water Pollution Control Agencies

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

## **Existing Effluent Quality**

The existing effluent quality is determined from a statistical evaluation of effluent data in accordance with TOGS 1.2.1 and the USEPA Office of Water, <u>Technical Support Document for Water Quality-based Toxics Control</u>, March 1991, Appendix E (TSD). The existing effluent quality is equal to the 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.

## Permit Requirements

## **Basis for Effluent Limitations**

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

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

### Anti-backsliding

Anti-backsliding requirements are specified in the CWA sections 402(o) and 303(d)(4), ECL 17-0809, and regulations at 40 CFR 122.44(*I*) and 6 NYCRR 750-1.10(c) and (d). Generally, the relaxation of effluent limitations in permits is prohibited unless one of the specified exceptions applies, which will be cited on a case-by-case basis in this factsheet. Consistent with current case law<sup>3</sup> and USEPA interpretation<sup>4</sup> 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>3</sup> American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)
 <sup>4</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 and/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/or 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 <u>USEPA Effluent Limitation Guideline Calculations Table</u>.

### 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 Department 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 Date: December 4, 2023 Permit Writer: Michael Bocchi, DEC Region 6 Full Technical Review: No

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

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

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

#### Mixing Zone Analyses

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

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

#### Critical Flows

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

#### Reasonable Potential Analysis (RPA)

The Reasonable Potential Analysis (RPA) is a statistical estimation process, outlined in the 1991 USEPA Technical Support Document for Water Quality-based Toxics Control (TSD), Appendix E. This process uses existing effluent quality data and statistical variation methodology to project the maximum amounts of pollutants that could be discharged by the facility. This projected

instream concentration (PIC) is calculated using the appropriate ratio and compared to the water quality standard (WQS). When the RPA process determines the WQS may be exceeded, a WQBEL is required. The procedure for developing WQBELs includes the following steps:

1) identify the pollutants present in the discharge(s) based upon existing data, sampling data collected by the permittee as part of the permit application or a short-term high intensity monitoring program, or data gathered by the Department;

2) identify water quality criteria applicable to these pollutants;

3) determine if WQBELs are necessary (i.e. reasonable potential analysis (RPA)). The RPA will utilize the procedure outlined in Chapter 3.3.2 of EPA's Technical Support Document (TSD). As outlined in the TSD, for parameters with limited effluent data the RPA may include multipliers to account for effluent variability; and,

4) calculate WQBELs (if necessary). Factors considered in calculating WQBELs include available dilution of effluent in the receiving water, receiving water chemistry, and other pollutant sources.

The Department uses modeling tools to estimate the expected concentrations of the pollutant in the receiving water and develop WQBELs. These tools were developed in part using the methodology referenced above. If the estimated concentration of the pollutant in the receiving water is expected to exceed the ambient water quality standard or guidance value (i.e. numeric interpretation of a narrative water quality standard), then there is a reasonable potential that the discharge may cause or contribute to an exceedance of any State water quality standard adopted pursuant to NYS ECL 17-0301. If a TMDL is in place, the facility's WLA for that pollutant is applied as the WQBEL.

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

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

## Whole Effluent Toxicity (WET) Testing:

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

- 1. There is the presence of substances in the effluent for which ambient water quality criteria do not exist.
- 2. There are uncertainties in the development of TMDLs, WLAs, and WQBELs, caused by inadequate ambient and/or discharge data, high natural background concentrations of pollutants, available treatment technology, and other such factors.

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- 3. There is the presence of substances for which WQBELs are below analytical detectability.
- 4. There is the possibility of complex synergistic or additive effects of chemicals, typically when the number of metals or organic compounds discharged by the permittee equals or exceeds five.
- 5. There are observed detrimental effects on the receiving water biota.
- 6. Previous WET testing indicated a problem.
- 7. POTWs which exceed a discharge of 1 MGD. Facilities of less than 1 MGD may be required to test, e.g., POTWs <1 MGD which are managing industrial pretreatment programs.

#### Minimum Level of Detection

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

#### **Monitoring Requirements**

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

#### Other Conditions

#### Mercury

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

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

#### Schedules of Compliance

Schedules of compliance are included in accordance with 40 CFR Part 132 Attachment F, Procedure 9, 40 CFR 122.47 and 6 NYCRR 750-1.14. Schedules of compliance are intended to, in the shortest reasonable time,

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achieve compliance with applicable effluent standards and limitations, water quality standards, and other applicable requirements. Where the time for compliance is more than nine months, the schedule of compliance must include interim requirements and dates for their achievement. If the time necessary to complete the interim milestones is more than nine months, and not readily divisible into stages for completion, progress reports must be required.

#### Schedule(s) of Additional Submittals

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

#### Best Management Practices (BMP) for Industrial Facilities

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