

# State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code: <b>4941</b>	NAICS Code:	221310		SPDES Number:	NY 0261076		
Discharge Class (CL):	01			DEC Number:	4-1928-00043/00005		
Toxic Class (TX):	Т			Effective Date (EDP):			
Major-Sub Drainage Basin:	13 - 09			Expiration Date (ExDP):			
Water Index Number:	H-193-9-2	Item No.:	863 - 155	Madification Dates (EDDM).	EDDM		
Compact Area:	-			Modification Dates (EDPM):	EDFIVI		

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

PERMITTEE NAME AND ADDRESS							
Name:	Village of Catskill	Attention	Described Described Transfer				
Street:	422 Main St.	Attention: President, Board of Tru		or trustees			
City:	Catskill	State:	NY	Zip Code:	12414		
Email:	WFP@villageofcatskill.net	Phone:	(518) 945-1839				

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL																	
Name:	Potic	tic Reservoir Water Treatment Plant (Catskill WFP)															
Address / Location:	89 Pot	Potic Creek Road/Coxsackie (T) County: Greene															
City:	Earlto	arlton State NY Zip Code: 1205					58										
Facility Location:		Latitude:	42	o	19	,	50	" N	&	Longitude	<b>)</b> :	74	0	54	,	53	" W
Primary Outfall No.:	001	Latitude:	42	0	19	,	50	" N	&	Longitude	e:	74	0	54	,	53	" W
Wastewater Description:	Filter	Backwash	Receiving Water:		Cob C	re	ek	NAICS	S:	221310	Cla	iss:	С	Star	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:**

CO BWP - Permit Coordinator CO BWC - SCIS RWE RPA EPA Region II

Permit Administrator:			
Address:	1130 North Westcott Road, Sch	nenectad	ly, NY 12306
Signature:		Date:	//

SPDES Number: **NY 0261076** Page 2 of 11 v.1.15

# **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.

SPDES Number: NY 0261076

Page 3 of 11 v.1.15

## PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
001	Water Filter Backwash	Cob Creek	EDP	ExDP

	EFF	EFFLUENT LIMITATION						MONITORING REQUIREMENTS			
PARAMETER							2	Location		FN	
	Туре	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.		
Flow	Monthly Average	0.250	MGD			Continuous	Meter		Х		
	Daily Minimum	6.5	SU			Manth	Oneh		V		
pΗ	Daily Maximum	8.5	SU			Monthly	Grab		Х		
Temperature	Daily Maximum	Monitor	°F			Monthly	Grab		Х	1	
Total Suspended Solids	Monthly Average	20	mg/L			Monthly	Grab		Х		
(TSS) (net)	Daily Maximum	40	mg/L			Monthly	Grab		X		
Settleable Solids	Daily Maximum	0.1	mL/L			Monthly	Grab		Х		
Chlorine, Total Residual	Daily Maximum	0.1	mg/L			Monthly	Grab		Х	2	
Iron, Total	Monthly Average	2.0	mg/L			Monthly	Grab		Х		
	Daily Maximum	4.0	mg/L			Monthly	Grab		Х		
	Monthly Average	2.0	mg/L			Monthly	Grab		Х		
Aluminum, Total	Daily Maximum	4.0	mg/L			Monthly	Grab				

# Footnotes Continued on Next Page FOOTNOTES:

1. Temperature Action Level – Monitoring Program

If the discharge temperature exceeds the Action Level of 70° F the permittee shall, within one week, undertake the following sampling program. Temperature shall be measured at the following three locations as specified in the Thermal Monitoring Sampling Plan (see Schedule of Additional Submittals on page 8 of this permit), all within one hour, on the same day, once in the morning and once in the afternoon:

- 1. Influent to the wastewater treatment process
- 2. Effluent sample as close as practical to the outfall without interference from the receiving water
- 3. Downstream receiving water sample
- 4. Upstream receiving water sample

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

Results shall be appended to the corresponding Discharge Monitoring Report (DMR) and emailed in spreadsheet format to <a href="mailto:spdes.temperaturedata@dec.ny.gov">spdes.temperaturedata@dec.ny.gov</a>.

2. Sampling and reporting for total residual chlorine is 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.

SPDES Number: **NY 0261076**Page 4 of 11 v.1.15

# MERCURY MINIMIZATION PROGRAM (MMP) - Type IV

On 10/13/2022, the permittee submitted a Conditional Exclusion Certification, certifying that the facility does not have any of the mercury sources listed in Part III.A.3. of DOW 1.3.10.

- 1. <u>General</u> The permittee must develop, implement, and maintain a mercury minimization program (MMP), containing the elements set forth below.
- 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>Conditional Exclusion Certification</u> A certification (Appendix D of *DOW 1.3.10*), signed in accordance with 750-1.8 Signature of SPDES forms, must be submitted once every five (5) years to the Regional Water Engineer and to the Bureau of Water Permits certifying that the facility is not a mercury source and does not receive flows from a mercury source. Criteria to determine if a facility has a mercury source are as follows:
    - The facility is or receives discharge from 1) individually permitted combined sewer overflow (CSOs)<sup>2</sup> communities and/or 2) Type II sanitary sewer overflow (SSO)<sup>3</sup> facilities;
    - One or more effluent samples which exceed 12 ng/L, including samples taken as a result of the SPDES application process;
    - Internal or tributary waste stream samples exceed the GLCA effluent limitation <u>AND</u> the final effluent samples are less than the GLCA due primarily to dilution by uncontaminated or less contaminated waste streams. Both components of this criterion may include samples taken as a result of the SPDES application process;
    - A permit application or other information indicates that mercury is handled on site and could be discharged through outfalls;
    - Outfalls which contain legacy mercury contamination;
    - The facility's collection system receives discharges from a dental and/or categorical industrial user (CIU)<sup>4</sup> that may discharge mercury;
    - The facility accepts hauled wastes; or,
    - The facility is defined as a categorical industry that may discharge mercury. This may also include dentists, universities, hospitals, or laboratories which have their own SPDES permit.
  - b. Control Strategy The control strategy must contain the following minimum elements:
    - i. <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.
    - ii. <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.

<sup>&</sup>lt;sup>1</sup>Neither monitoring nor outreach is required for facilities meeting the criteria for MMP Type IV, but monitoring and/or outreach can be included in the permittee's control strategy.

<sup>&</sup>lt;sup>2</sup> CSO permits are included under the 05 and 07 permit classifications.

<sup>&</sup>lt;sup>3</sup>These are overflow retention facilities (ORFs) and are included under the 05 and 07 permit classifications.

<sup>&</sup>lt;sup>4</sup> CIUs include those listed under Federal Regulation in 40 CFR Part 400.

SPDES Number: NY 0261076

Page 5 of 11 v.1.15

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

- 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. Review of criteria to determine if the facility has a potential mercury source;
    - a. If the permittee no longer meets the criteria for MMP Type IV, the permittee must notify the Department for a permittee-initiated permit modification;
  - ii. All actions undertaken, pursuant to the control strategy, during the previous year; and
  - iii. Actions planned, pursuant to the control strategy, for the upcoming year.

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. A letter from the Department identifies inadequacies in the MMP.

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

#### **DEFINITIONS:**

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.

SPDES Number: **NY 0261076**Page 6 of 11 v.1.15

#### 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.

# 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:

Effluent: Flow at meter; Grab samples at Outfall 001



## **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 H as follows:

#### B. General Conditions

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

#### C. Operation and Maintenance

1.	Proper Operation & Maintenance	6 NYCRR 750-2.8
2.	Bypass	6 NYCRR 750-1.2(a)(17), 2.8(b) & 2.7
3.	Upset	6 NYCRR 750-1.2(a)(94) & 2.8(c)

#### D. Monitoring and Records

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

#### E. Reporting Requirements

	orting requirements	
1.	Reporting requirements for non-POTWs	6 NYCRR 750-2.5, 2.6, 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)

#### F. Sludge Management

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

#### G. 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.

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

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

- 1. WTC use shall not exceed the rate explicitly authorized by this permit or otherwise authorized by the Department.
- 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 excessive levels of WTCs are not used.
- 3. The permittee shall submit a completed WTC Annual Report Form each year that they use and discharge WTCs. This form shall be submitted in electronic format and attached to either the December DMR or the annual monitoring report required below. The WTC Notification Form and WTC Annual Report Form are available from the Department's website at: http://www.dec.ny.gov/permits/93245.html

SPDES Number: NY 0261076

Page 9 of 11 v.1.15

# 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 <a href="https://www.dec.ny.gov/chemical/103774.html">https://www.dec.ny.gov/chemical/103774.html</a>. Hardcopy paper DMRs will only be received at the address listed below, directed to the Bureau of Water Compliance, if a waiver from the electronic submittal requirements has been granted by DEC to the facility.

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

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

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

Phone: (518) 402-8111

Department of Environmental Conservation Regional Water Engineer, Region 4 1130 North Westcott Road, Schenectady, New York, 12306-2014 Phone: (518) 357-2045



SPDES Number: **NY 0261076** Page 10 of 11 v.1.15

#### D. 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:

Outfall(s)	SCHEDULE OF ADDITIONAL SUBMITTALS - Required Action	Due Date
001	THERMAL MONITORING SAMPLING PLAN The permittee shall submit for review and approval a sample location plan to be used in the Thermal Monitoring Program as described in Footnote 1 of page 4 of this permit.  At a minimum, the plan shall identify the horizontal and vertical locations of sample points to monitor the thermal impacts of the effluent on the receiving stream. The receiving water sample locations should be located on the same side of the stream as the outfall, at the midpoint between the shoreline and centerline of the stream, in the top half of the water column. The plan shall include a map showing the following locations where temperature will be measured in the event the Thermal Monitoring Program is triggered:	EDPM + 1 Month
	1. Influent to the wastewater treatment process 2. Effluent as close as practical to the outfall without the influence from the receiving water 3. Receiving water no more than 20 times the stream width downstream of the outfall 4. Receiving water 0 to 10 feet upstream of the outfall.	
	Upon approval of the plan, the sampling locations shall be incorporated by reference into the permit and used for all subsequent monitoring unless different locations are approved by the Department.	
001	TEMPERATURE MANAGEMENT PLAN  The permittee shall submit a temperature management plan to minimize thermal impacts to the receiving water. The goal of the plan is to reduce effluent temperature below the 70°F action level. The plan shall incorporate the following:  1. Thermal track-down – The permittee shall conduct a thermal assessment of the current treatment system to include influent and effluent temperature monitoring from the treatment system and each unit within the system. Any process that adds heat to the system must be identified.  2. Passive cooling measures – The permittee shall assess passive cooling measures including operational and physical modifications (e.g., shading of tankage, riparian shading, geothermal looping of discharge pipe) that may be used to reduce effluent temperature to the maximum extent practical.  Implementation – The temperature management plan shall contain action items to address the assessments noted in 1 and 2 above as well as a schedule for implementation. The temperature management plan and schedule will become an enforceable part of the permit upon acceptance by the Department.	EDPM + 6 months
	WATER TREATMENT CHEMICAL (WTC) ANNUAL REPORT FORM The permittee shall submit a completed WTC Annual Report Form each year that Water Treatment Chemicals are used. The form shall be attached to the December DMR.	January 28 <sup>th</sup> annually
	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 EDPM + 12 months, annually thereafter

SPDES Number: **NY 0261076**Page 11 of 11 v.1.15

E. 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.

- F. 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.
- G. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- H. 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.
- I. Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section 502 of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be directed to the New York State Department of Health, Environmental Laboratory Accreditation Program.



Permittee: Village of Catskill Facility: Potic Reservoir Water Treatment Plant

SPDES Number: NY 026 1076 USEPA Non-Major/Class 01 Industrial Date: February 3, 2023 v.1.13
Permit Writer: Rebecca Mitchell

# SPDES Permit Fact Sheet Village of Catskill Potic Reservoir Water Treatment Plant NY 026 1076



Permittee: Village of Catskill Date: February 3, 2023 v.1.13 Facility: Potic Reservoir Water Treatment Plant Permit Writer: Rebecca Mitchell

SPDES Number: NY 026 1076

USEPA Non-Major/Class 01 Industrial

# Summary of Permit Changes

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

- Updated the permit format, definitions, and general conditions.
- Updated the effluent temperature limitation to an action level with a Temperature Monitoring Program.
- Added a requirement for a Temperature Management Plan.
- Added a mercury minimization program consistent with current guidance (TOGS 1.3.10, December 2020).

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

# Administrative History

10/1/1999

The last full technical review was performed and the SPDES permit became effective with a new five-year term and expiration date of 9/30/2004. This permit, along with all subsequent modifications, if any as listed below, has formed the basis of this permit.

The permit was administratively renewed in 2004, 2009, 2014, and 2019. The current permit administrative renewal is effective until 9/30/2024.

- 4/13/2010 The permit was modified to include reference to a third sludge drying bed that has since been constructed.
- 1/31/2013 The permit was modified to increase the monthly average flow limit from 80,000 gallons per day to 250,000 gallons per day when the Village had to stop returning any treated backwash water to the head of the drinking water plant. Although a water quality review was completed during this modification, it was not considered a full technical permit review of the.
- 7/21/2017 The Village of Catskill submitted a request to modify the permit to replace the effluent temperature limit with an action level.
- 11/1/2019 The Village of Catskill submitted temperature monitoring data, completing a timely and sufficient NY-2C permit application.

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

# **Facility Information**

This is an industrial facility (SIC code 4941) that produces drinking water. Effluent consists of treated filter backwash water. The current treatment system includes the following treatment units:

- Preliminary Treatment: Backwash water settling tank
- Primary Treatment: Settling basins

Facility: Potic Reservoir Water Treatment Plant

SPDES Number: NY 026 1076 USEPA Non-Major/Class 01 Industrial Date: February 3, 2023 v.1.13 Permit Writer: Rebecca Mitchell

Solids are allowed to dry in the basins and removed for temporary storage. The Village is seeking a beneficial use determination to allow the use of the solids in landscaping soils.

#### Site Overview



#### **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 for temperature. The existing effluent quality was determined from Discharge Monitoring Reports and the application submitted by the permittee. <u>Appendix Link</u>

#### Additional Site-Specific Concerns

The facility provides treated drinking water for the Village of Catskill and portions of the Town of Catskill. The water is drawn from Potic Reservoir, an impoundment in Cob Creek, a tributary of Potic Creek. The facility discharges treated filter backwash water to Cob Creek directly below the Potic Reservoir dam. During periods of dry weather, there is little to no flow over the spillway upstream of the facility's discharge to the creek.

The stretch of the creek below the dam where Outfall 001 is located is classified as a trout stream (Class C(T)). The daily maximum temperature of the effluent sometimes exceeds the current 70°F temperature limit during the summer.

From July 16 through October 26, 2019, the Village of Catskill undertook a temperature study to evaluate the effect of the effluent temperature on water temperature in the stream. The Village continuously measured the temperature of the discharge and of the receiving water upstream and

Facility: Potic Reservoir Water Treatment Plant

SPDES Number: NY 026 1076

USEPA Non-Major/Class 01 Industrial

Date: February 3, 2023 v.1.13 Permit Writer: Rebecca Mitchell

downstream of the discharge at locations chosen in consultation with the NYSDEC Division of Fish, Wildlife, and Marine Resources. The study demonstrated that the temperature of the facility's effluent was related to the temperature of the water in the upstream reservoir when it enters the treatment process; furthermore, in hot weather, the temperature of the effluent was usually lower than the temperature of the receiving water both upstream and downstream of the discharge.

Upon reviewing the results of the temperature study, NYSDEC has determined that it is appropriate for the Village to implement a Temperature Management Plan to assess operational and physical modifications to the treatment process that may help to reduce the temperature of the facility's effluent during hot weather. The Village will also implement a Thermal Monitoring Program that will be triggered by exceeding a 70°F action level at Outfall 001.

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

# **Receiving Water Information**

The facility discharges via the following outfall:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	4941	Treated filter backwash	Cob Creek, Class C(T)

#### **Reach Description:** See above.

See the <u>Outfall and Receiving Water Summary Table</u> and <u>Appendix</u> for additional information.

#### Impaired Waterbody Information

The Cob Creek segment (PWL No. 1309-0023) is not listed on the current <u>New York State</u> <u>Section 303(d) List</u> of Impaired/TMDL Waters, and therefore, there are no applicable wasteload allocations (WLAs) for this discharge.

#### Critical Receiving Water Data & Mixing Zone

The 7Q10 low-flow condition of Cob Creek was found to be 0 CFS. Consistent with TOGS 1.3.1, intermittent stream effluent limits apply for flows <0.1 CFS, and the water quality standards will be applied as end-of-pipe limitations with no mixing or dilution.

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

# Permit Requirements

Temperature data are provided in the Pollutant Summary Table.

#### Anti-backsliding

The temperature limit has been replaced with an action level. This change is consistent with the requirements of 6 NYCRR 750-1.10(c)(3).

Facility: Potic Reservoir Water Treatment Plant

SPDES Number: NY 026 1076

USEPA Non-Major/Class 01 Industrial

#### 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>1</sup> determination. Appendix Link

Date: February 3, 2023 v.1.13

Permit Writer: Rebecca Mitchell

#### 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 updated from the previous permit.

#### Mercury<sup>2</sup>

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

The facility is outside the Great Lakes Basin and has no mercury source. On 10/13/2022, the permittee submitted a Conditional Exclusion Certification, certifying that the facility does not have any of the mercury sources listed in Part III.A.3. of DOW 1.3.10 and the effluent measured <12 ng/L. Therefore, consistent with DOW 1.3.10, the permit includes requirements for the implementation of MMP Type IV and does not include mercury effluent limitations. The Schedule of Additional Submittals includes a mercury minimization plan annual status report (maintained onsite), and re-certification of the exclusion every five years. As part of the recertification, the effluent must be sampled and continue to measure <12 ng/L. This requirement is new.

#### Schedule(s) of Additional Submittals

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

- Thermal monitoring sampling plan
- Temperature management plan
- MMP Annual Status Report (to be maintained onsite)
- WTC Annual Report

<sup>1</sup> As prescribed by 6 NYCRR Part 617

**PAGE 5 OF 11** 

<sup>&</sup>lt;sup>2</sup> In accordance with DOW 1.3.10 Mercury – SPDES Permitting & Multiple Discharge Variance (MDV), December 30, 2020.

Facility: Potic Reservoir Water Treatment Plant

SPDES Number: NY 026 1076

USEPA Non-Major/Class 01 Industrial

Date: February 3, 2023 v.1.13 Permit Writer: Rebecca Mitchell

# **OUTFALL AND RECEIVING WATER SUMMARY TABLE**

		Longitude	Receiving Water Name	Water Class	Water Index No. / Priority Waterbody Listing (PWL) No.	Major / Sub Basin	Hardness (mg/l)	1Q10 (MGD)	7Q10 (MGD)		Critical	Dilution Ratio		
Outfall	Latitude									30Q10 (MGD)	Effluent Flow (MGD)	A(A)	A(C)	HEW
001	42° 19' 50" N	74° 54' 53" W	Cob Creek	C(T)	H-193-9-2 PWL: 1309-0023	13 / 09	-	0	0	0	0.250	-	-	-

## POLLUTANT SUMMARY TABLE

#### Outfall 001

Outfall #	ackwash fror	l drinking water fi	ilters												
Outrail #	001	Type of Tre	ype of Treatment: Settling												
			Existi	ng Discha	rge Data	TBELs		Water Quality Data & WQBELs							Basis for
Effluent Parameter	Units	Averaging Period	Permit Limit	Existing Effluent Quality <sup>3</sup>	# of Data Points Detects / Non- Detects	Limit	Basis	Ambient Bkgd. Conc <sup>4</sup> .	Projected Instream Conc. <sup>5</sup>	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL	ML	Permit Requirement
General Notes: Not a full technical review. This modification was to change effluent limitations for temperature only.															
Temperature	°F	Daily Max	70	78.9	60/0	Monitor	BPJ	36 - 105	51 - 90	See footnote <sup>6</sup>	Narrative	Action Level	704.1 and 704.2	-	Action Level

<sup>&</sup>lt;sup>3</sup> Existing Effluent Quality: Maximum temperature from monthly DMRs 1/2018 – 12/2022. Range of effluent temperatures measured by datalogger from 7/16/2019 – 10/26/2019 was 52°F – 85°F.

<sup>&</sup>lt;sup>4</sup> Range of upstream temperatures measured by datalogger from 7/16/2019 – 10/26/2019

<sup>&</sup>lt;sup>5</sup> Range of downstream temperatures measured by datalogger from 7/16/2019 – 10/26/2019

<sup>&</sup>lt;sup>6</sup> 6 NYCRR Part 704.2(b)(2)(ii) states "from June to September no discharge shall be permitted that will raise the temperature of the stream more than 2.0°F over that which existed before the addition of heat of artificial origin."

Permittee: Village of Catskill

Facility: Potic Reservoir Water Treatment Plant

Date: February 3, 2023 v.1.13

Permit Writer: Rebecca Mitchell

SPDES Number: NY 026 1076 USEPA Non-Major/Class 01 Industrial

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

Facility: Potic Reservoir Water Treatment Plant

SPDES Number: NY 026 1076 USEPA Non-Major/Class 01 Industrial

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

Date: February 3, 2023 v.1.13

Permit Writer: Rebecca Mitchell

#### **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. The <u>Pollutant Summary Table</u> identifies the number of sample data points available.

#### Permit Requirements

#### **Basis for Effluent Limitations**

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

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

#### Anti-backsliding

Anti-backsliding requirements are specified in the CWA sections 402(o) and 303(d)(4), ECL 17-0809, and regulations at 40 CFR 122.44(*I*) and 6 NYCRR 750-1.10(c) and (d). Generally, the relaxation of effluent limitations in permits is prohibited unless one of the specified exceptions applies, which will be cited on a case-by-case basis in this factsheet. Consistent with current case law<sup>7</sup> and USEPA interpretation<sup>8</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); 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

<sup>&</sup>lt;sup>7</sup> American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)

<sup>&</sup>lt;sup>8</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)

Facility: Potic Reservoir Water Treatment Plant

SPDES Number: NY 026 1076 USEPA Non-Major/Class 01 Industrial Date: February 3, 2023 v.1.13 Permit Writer: Rebecca Mitchell

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.

#### 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

Permittee: Village of Catskill Date: February 3, 2023 v.1.13 Facility: Potic Reservoir Water Treatment Plant Permit Writer: Rebecca Mitchell

SPDES Number: NY 026 1076

USEPA Non-Major/Class 01 Industrial

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 quidance 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.

Permittee: Village of Catskill Date: February 3, 2023 v.1.13 Permit Writer: Rebecca Mitchell

Facility: Potic Reservoir Water Treatment Plant

SPDES Number: NY 026 1076 USEPA Non-Major/Class 01 Industrial

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

#### Minimum Level of Detection

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

#### Monitoring Requirements

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

#### Other Conditions

#### Mercury

The multiple discharge variance (MDV) for mercury was developed in accordance with 6 NYCRR 702.17(h) "to address widespread standard or guidance value attainment issues including the presence of a ubiquitous pollutant or naturally high levels of a pollutant in a watershed." The first MDV was issued in October 2010, and subsequently revised and reissued in 2015 and 2020; 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.

#### 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.