



Department of
Environmental
Conservation

State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	8999	NAICS Code:	721214	SPDES Number:	NY0274127
Discharge Class (CL):	09	DEC Number:	3-4820-00173/00001		
Toxic Class (TX):	N	Effective Date (EDP):			
Major-Sub Drainage Basin:	14 - 01	Expiration Date (ExDP):			
Water Index Number:	D-10-22	Item No.:	815.6 - 211	Modification Dates (EDPM):	
Compact Area:	DRBC				

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:	Swan in Swan Lake Sewage Works Corp.		Attention:	Moshe Friesel, Manager	
Street:	35 Ostereh Boulevard				
City:	Spring Valley		State:	NY	Zip Code: 10977
Email:	moshe3751@gmail.com		Phone:	845-709-3751	

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL											
Name:	The Swan in Swan Lake										
Address / Location:	4702 NYS Route 55						County:	Sullivan			
City:	Town of Bethel				State:	NY	Zip Code:	12734			
Facility Location:	Latitude:	41 °	44 '	37.00 " N	& Longitude:	74 °	46 '	53.7 " W			
Primary Outfall No.:	001	Latitude:	41 °	44 '	29.37 " N	& Longitude:	74 °	47 '	4.99 " W		
Outfall Description:	Treated Sanitary	Receiving Water:	West Branch Mongaup River			Class:	B	Standard:	B(T)		

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

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

DISTRIBUTION:

BWP Permit Coordinator (permit.coordinator@dec.ny.gov)
BWP Permit Writer
RWE
RPA

Permit Administrator:		
Address:		
Signature	Date	

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DEFINITIONS

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

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	66,000	GPD			Continuous	Meter	X or	X	
pH	Daily Minimum	6.5	SU			1/day	Grab		X	
	Daily Maximum	8.5	SU							
Temperature	Daily Maximum	Monitor	°F			1/day	Grab		X	
BOD ₅	Monthly Average	30	mg/L	16.5	lbs/d	1/month	Grab	X	X	(2)
BOD ₅	7-Day Average	45	mg/L	24.8	lbs/d	1/month	Grab	X	X	
Total Suspended Solids (TSS)	Monthly Average	30	mg/L	16.5	lbs/d	1/month	Grab	X	X	(2)
Total Suspended Solids (TSS)	7-Day Average	45	mg/L	24.8	lbs/d	1/month	Grab	X	X	
Settleable Solids	Daily Maximum	0.1	mL/L			1/day	Grab		X	
Dissolved Oxygen	Daily Minimum	5.0	mg/L			1/quarter	Grab		X	
Ammonia (as N), June 1 st – October 31 st	Daily Maximum	1.00	mg/L	0.57	lbs/d	1/quarter	Grab		X	
Ammonia (as N), November 1 st – May 31 st	Daily Maximum	1.91	mg/L	1.05	lbs/d	1/quarter	Grab		X	
Total Phosphorus (as P)	Monthly Average	0.5	mg/L	0.275	lbs/d	1/quarter	Grab		X	
Total Dissolved Solids (TDS)	Monthly Average	Monitor				1/quarter	Grab		X	(4,5)
EFFLUENT DISINFECTION		Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Required Seasonal from May 1st - October 31st										
Coliform, Fecal	30-Day Geometric Mean	200	No./100 mL			1/quarter	Grab		X	
Coliform, Fecal	7-Day Geometric Mean	400	No./100 mL			1/quarter	Grab		X	
Chlorine, Total Residual	Daily Maximum	0.03	mg/L			1/day	Grab		X	(3)

FOOTNOTES:

1. Startup of the wastewater treatment plant shall be as specified in the Schedule of Compliance.
2. Effluent shall not exceed 15% and 15% of influent concentration values for BOD₅ & TSS respectively.
3. Sampling and reporting for total residual chlorine are only necessary if chlorine is used for disinfection, elsewhere in the treatment process, or the facility otherwise has reasonable potential to discharge chlorine. Otherwise, the permittee shall report NODI-9 on the Annual Report.
4. Quarterly samples shall be collected in calendar quarters (Q1 – January 1st to March 31st; Q2 – April 1st to June 30th; Q3 – July 1st to September 30th; Q4 – October 1st to December 31st).

SPECIAL CONDITIONS

1. Prior to the permittee initiating any substantial alterations or additions to the existing WWTP as defined in Section 3.10.3A2.a.16) of the Delaware River Basin Commission's Water Quality Regulations (18CFR Part 410), a No Measurable Change to Existing Water Quality Analysis must be conducted by the Delaware River Basin Commission. The No Measurable Change to Existing Water Quality Analysis shall be conducted prior to final design to ensure that the Commission can provide the permittee with proposed effluent limitations to be included in a future SPDES permit for Special Protection Waters specific parameters as guidance for treatment design purposes. The permittee is encouraged to contact DRBC staff during the planning stages of any project that meets the definition of substantial alteration or additions, as per DRBC.
2. Except as otherwise authorized by this permit, if the permittee seeks relief from any limitation based upon a Delaware River Basin Commission water quality standard or minimum treatment requirement, the permittee shall apply for approval from the Delaware River Basin Commission Executive Director and NYSDEC for a permit revision.
3. Prior to accepting for treatment and discharge 50,000 gallons per day or more (as a daily average) of wastewater that is imported from outside the Delaware River Basin, the permittee shall first apply to and obtain approval from the Delaware River Basin Commission.
4. The permittee may conduct a study to determine if specific conductance may be substituted for TDS in the permit. The study should include effluent specific data to be used to determine a correlation between TDS and specific conductance. Upon review, the Delaware River Basin Commission will determine if the permit may be modified to allow the substitution of specific conductivity for TDS monitoring. The TDS limit would then be supplanted by a specific conductance limit in the permit.
5. The WWTP shall have available standby power facilities unless it can be shown that a proposed discharge can be interrupted for an extended period with no threat to the water quality of Delaware River Basin Commission (DRBC)-designated Special Protection Waters (SPW)." 18 CFR Part 410 Section 3.10.3. A. 2.d.1.
6. In the event that the WWTP is not staffed 24 hours every day, the WWTP shall have a remote alarm that will continuously monitor plant operations whenever the plant is not staffed. The alarm system shall be designed to alert someone available with authority and knowledge to take appropriate action. 18 CFR Part 410 Section 3.10.3. A. 2.d.2.
7. The permittee shall prepare and implement an emergency management plan (EMP) following the guidance provided in the Water Pollution Control Federation's Manual of Practice SM-8, Emergency Planning for Municipal Wastewater Facilities, the U.S. EPA's Design Criteria for Mechanical, Electric and Fluid System and Component Reliability or other suitable manuals. Emergency management plans shall include an emergency notification procedure covering all affected downstream users. 18 CFR Part 410 Section 3.10.3. A. 2.d.4.
8. Based upon the written recommendation of the DRBC staff, when the discharge is operated in accordance with the provisions and conditions established by this permit, then with respect to effluent quality and stream quality objectives, the project does not substantially impair or conflict with the Commission's Comprehensive Plan.

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:

<p>N.Y.S. PERMITTED DISCHARGE POINT</p> <p>SPDES PERMIT No.: NY_____</p> <p>OUTFALL No. : _____</p> <p>For information about this permitted discharge contact:</p> <p>Permittee Name: _____</p> <p>Permittee Contact: _____</p> <p>Permittee Phone: () - ### - ####</p> <p>OR:</p> <p>NYSDEC Division of Water Regional Office Address:</p> <p>NYSDEC Division of Water Regional Phone: () - ### - ####</p>
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- (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 ¹
001	<p><u>DESIGN DOCUMENTS</u> The permittee shall submit approvable Design Documents including a Basis of Design Report (BODR), Plans, Specifications, and Construction Schedule for the selected alternative that will ensure compliance with final effluent limitation(s) for pH, temperature, BOD₅, total suspended solids, settleable solids, dissolved oxygen, ammonia (as N), total phosphorus, total dissolved solids, fecal coliform, and total residual chlorine. The construction schedule shall include status updates every 9 months until construction completion.</p> <p><u>BEGIN CONSTRUCTION</u> The permittee shall begin construction of the modified treatment facilities in accordance with the Department approved Design Documents.</p> <p><u>COMPLETE CONSTRUCTION</u> The permittee shall provide a Certificate of Completion² to the Department that the disposal system has been fully completed in accordance with the approved Design Documents.</p> <p><u>COMMENCE OPERATION</u> Following receipt of Department acceptance of Certificate of Completion, the permittee shall comply with the final effluent limitation(s).</p>	<p>EDP + 12 Months</p> <p>In accordance with the approved schedule</p> <p>Within 15 days of construction completion</p> <p>Upon Department Acceptance (Startup)</p>
001	<p><u>INTERIM PROGRESS REPORT</u> The permittee shall provide a status update for <i>Design Documents</i>.</p>	EDP + 9 Months
001	<p><u>WATER TREATMENT CHEMICAL (WTC) FORM</u> The permittee shall submit a completed WTC form for the use of water treatment chemicals such as Alum.</p>	EDP + 3 months

¹ 6 NYCRR 750-1.14 (a)

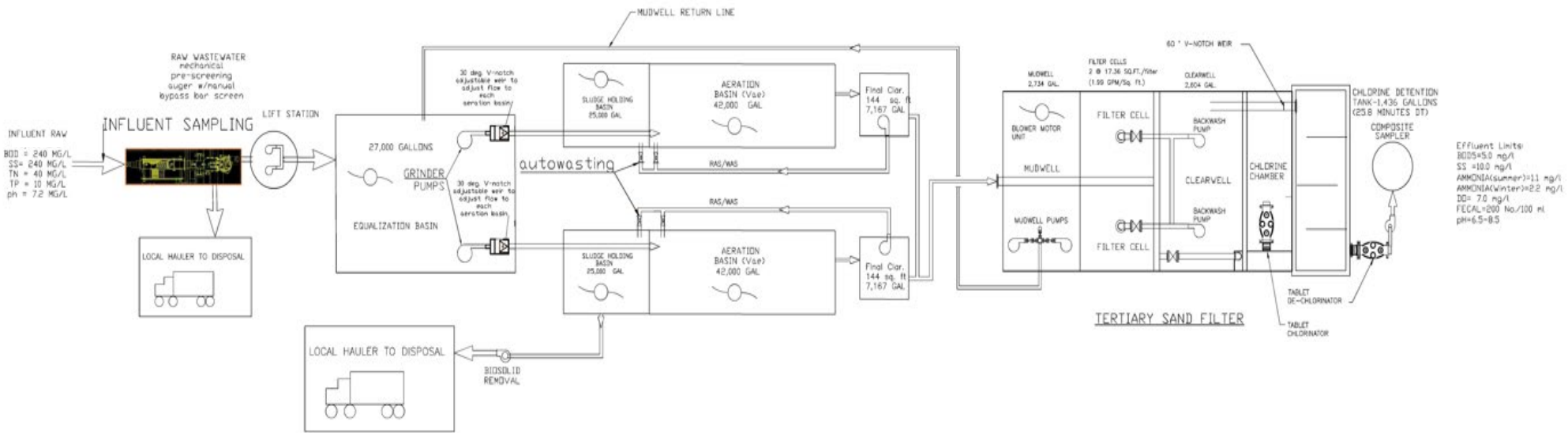
² 6 NYCRR 750-2.10 (c)

MONITORING LOCATIONS

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

Influent: Influent sampling occurs prior to auger and screen

Effluent: Effluent sampling following de-chlorination



GENERAL REQUIREMENTS

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

B. General Conditions

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

C. Operation and Maintenance

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

D. Monitoring and Records

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

E. Reporting Requirements

- | | |
|------------------------------|-----------------------------|
| 1. Reporting requirements | 6 NYCRR 750-2.5, 2.7 & 1.17 |
| 2. Anticipated noncompliance | 6 NYCRR 750-2.7(a) |
| 3. Transfers | 6 NYCRR 750-1.17 |
| 4. Monitoring reports | 6 NYCRR 750-2.5(e) |
| 5. Compliance schedules | 6 NYCRR 750-1.14(d) |
| 6. 24-hour reporting | 6 NYCRR 750-2.7(c) & (d) |
| 7. Other noncompliance | 6 NYCRR 750-2.7(e) |
| 8. Other information | 6 NYCRR 750-2.1(f) |

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, 4th Floor, New York, NY 10007-1866.

GENERAL REQUIREMENTS (continued)

G. Sludge Management

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

H. SPDES Permit Program Fee

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

I. Water Treatment Chemicals (WTCs)

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

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

RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

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

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

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

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

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

Department of Environmental Conservation
 Division of Water, Bureau of Water Permits
 625 Broadway, Albany, New York 12233-3505 Phone: (518) 402-8111

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

- 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:

SCHEDULE OF ADDITIONAL SUBMITTALS		
Outfall(s)	Required Action	Due Date
001	<u>WATER TREATMENT CHEMICAL (WTC) ANNUAL REPORT FORM</u> The permittee shall submit a completed WTC Annual Report Form each year that Water Treatment Chemicals are used. The form shall be attached to the December DMR	December 28 th every year beginning from Startup of the WWTP
001	<u>PUBLIC NOTIFICATION</u> Permittee shall install identification signs at all outfalls owned and operated by the permittee. The signs shall be placed at or near the outfalls and be easily readable by the public and follow the guidelines contained in this permit.	Within 3 months of construction completion

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

- 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.

DRAFT

Permittee: Swan in Swan Lake Sewage Works Corp.
Facility: the Swan in Swan Lake
SPDES Number: NY0274127
USEPA Non-Major/Class 09 PCI

Date: September 8, 2023 v.1.19
Permit Writer: Stephen Monteverde
Water Quality Reviewer: Aslam Mirza
Full Technical Review

SPDES Permit Fact Sheet

Swan in Swan Lake Sewage Works Corp.

the Swan in Swan Lake

NY0274127



**Department of
Environmental
Conservation**

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Summary of Permit Changes

A new State Pollutant Discharge Elimination System (SPDES) permit has been drafted for the Swan in Swan Lake. The draft permit includes:

- SPDES effluent limits for discharge water quality:
 - Consistent with TOGS 1.3.3, a monthly average flow limitation equal to the average daily design capacity of the treatment plant is specified.
 - Given the available dilution, an effluent limitation equal to the Water Quality Standard for pH limitations has been included and is considered protective.
 - Consistent with 6 NYCRR 750-1.13(a), monitoring is required and may be used to inform future permitting decisions. An effluent limit of 70 °F is recommended per Part 704.2; therefore, monitoring of the effluent is required.
 - In accordance with 6 NYCRR Part 703.3, effluent must allow for a dissolved oxygen concentration of 5.0 mg/L or greater contribution to downstream waters.
 - Secondary treatment levels as per TOGS 1.3.3 (of 30/45 mg/l) for BOD₅ and TSS would be protective of the water quality of the receiving water for class B(T).
 - Consistent with TOGS 1.3.3, the effluent limitation for settleable solids is equal to the TBEL of 0.1 mL/L. Given that adequate dilution is available the TBEL is protective of the WQS.
 - Winter and Summer limits for ammonia were developed based on the Water quality modelling.
 - Consistent with TOGS 1.3.6, a total phosphorus limit of 0.5 mg/L is recommended and considered protective of the Water Quality Standard.
 - Consistent with TOGS 1.3.3, fecal coliform effluent limitations are specified.
 - A TRC effluent limit of 0.03 mg/L is included.
 - A monitor requirement is included for temperature since this is a trout stream.
 - A monitor requirement is included for Total Dissolved Solids as per DRBC.
 - The facility is classified as a 09 and requires submission of Discharge Monitoring Reports.

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

Administrative History

6/1/2009 The last full technical review was performed and the SPDES permit became effective with a new five-year term and expiration date of 5/31/2014. The 2009 permit has formed the basis of this permit.

The permit was administratively renewed in 2015.

1/31/2020 The SPDES permit expired.

5/23/2023 The Swan in Swan Lake Sewage Works Corp. submitted a new PCI form.

6/7/2023 The Department issued a notice of incomplete application for the May 23, 2023, application.

6/20/2023 The Swan in Swan Lake Sewage Works Corp. submitted a revised application.

Permittee: Swan in Swan Lake Sewage Works Corp. Date: September 8, 2023 v.1.19
Facility: the Swan in Swan Lake Permit Writer: Stephen Monteverde
SPDES Number: NY0274127 Water Quality Reviewer: Aslam Mirza
USEPA Non-Major/Class 09 PCI Full Technical Review

- 7/10/2023 The Swan in Swan Lake Sewage Works Corp. submitted a second, revised SPDES application.
- 9/5/2023 The Department issued a second notice of incomplete application based on the May, June, and July SPDES applications submitted by the Swan in Swan Lake Sewage Works Corp.
- 9/6/2023 The Swan in Swan Lake Sewage Works Corp. responded to the second notice of incomplete application and submitted a revised PCI form and Engineer's Report.

The Notice of Complete Application, which will be published in the [Environmental Notice Bulletin](#) and newspapers, contains information on the public notice process.

Facility Information

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

The proposed 66,000 GPD treatment plant consists of:

- Preliminary Treatment: Prescreening auger and manual bar screen.
- Primary Treatment: Sludge holding basins.
- Secondary Treatment: Extended aeration basins.
- Tertiary Treatment: Tertiary Sand Filters.
- Disinfection: Chlorination and De-chlorination tablet feeders.

Sludge will be pumped for biosolids removal by a local hauler.

The primary outfall (Outfall 001) is located approximately 10 feet (8.83 ft) from the edge of the stream and will serve as a bank discharge. The outfall pipe is 6 inches in diameter and will extend over a total distance of 359 feet before discharging at the ditch near the bank of the river.

Site Overview

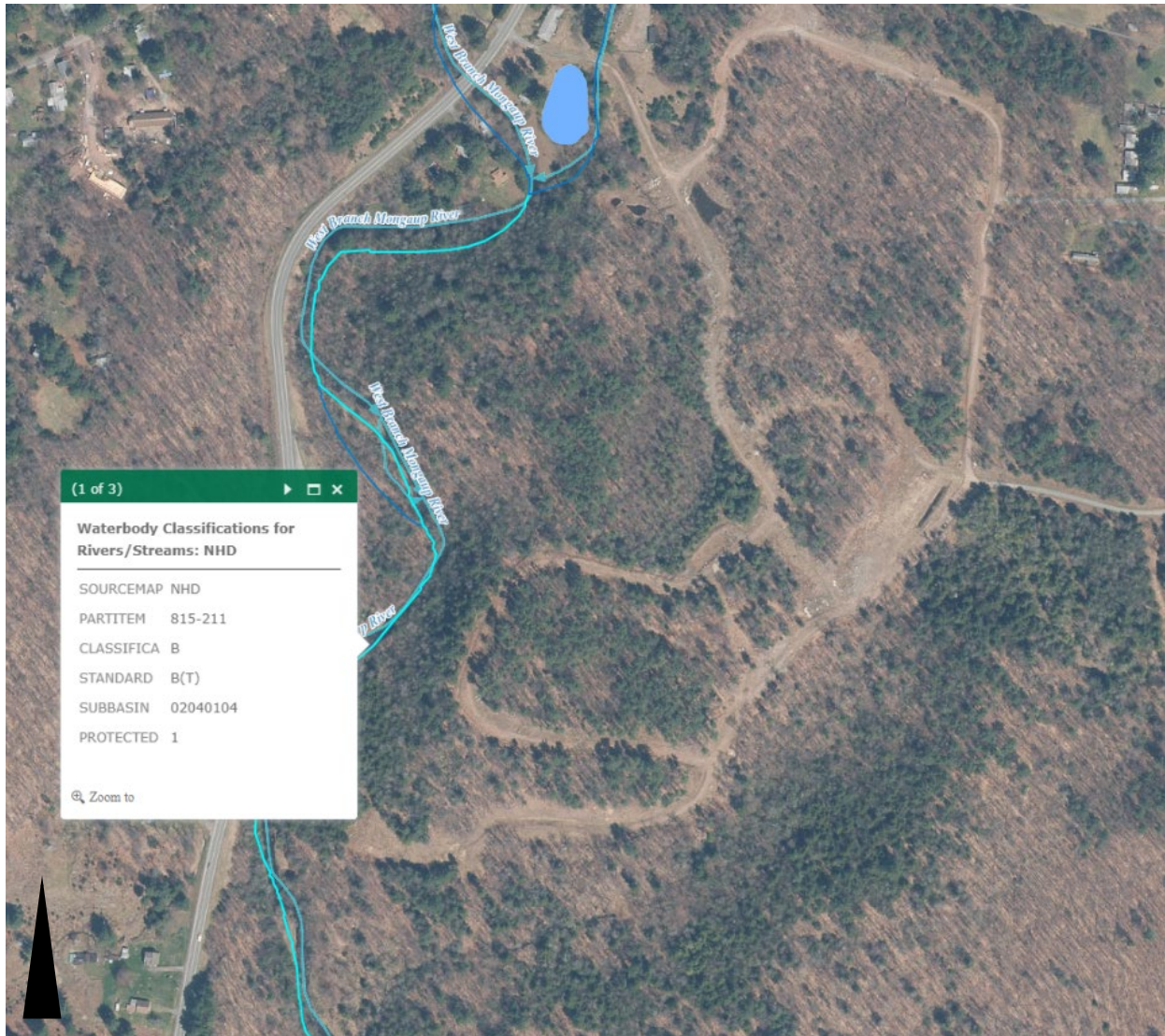


Figure 1: Overview prior to construction activity and West Branch of the Mongaup River located to the West of the site.

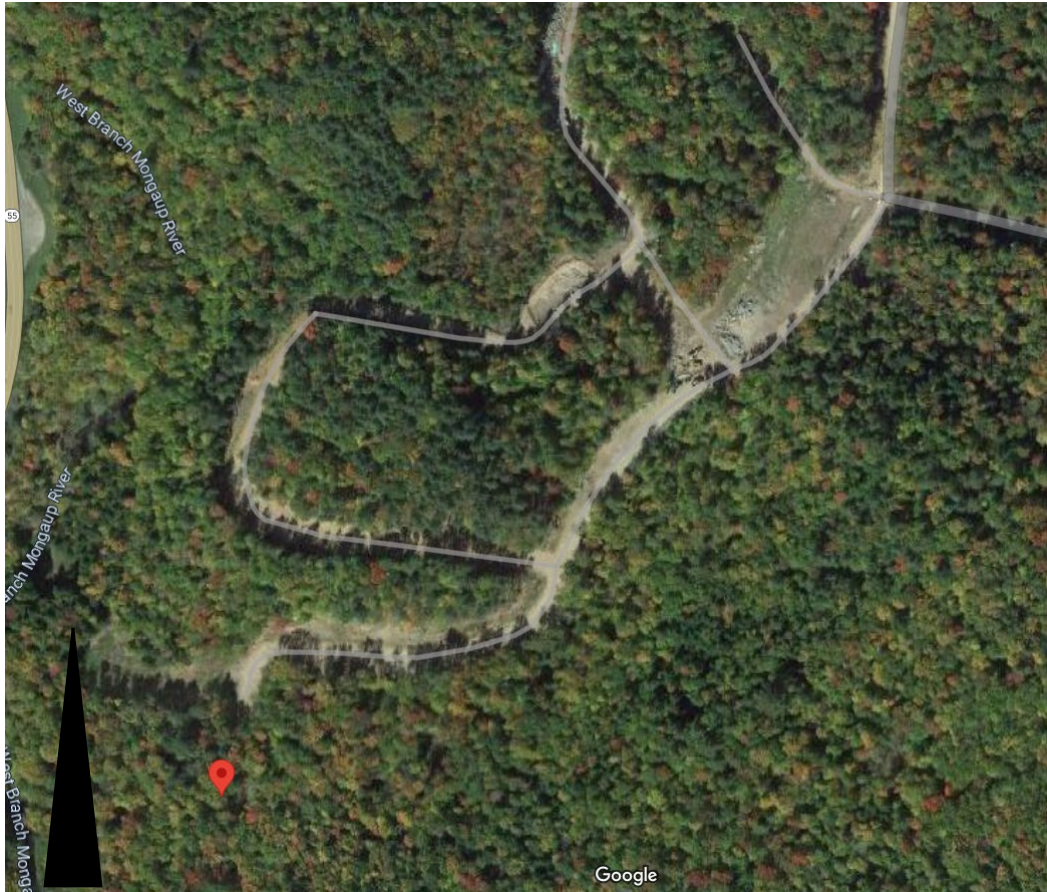


Figure 2: Outfall location at southern end of site. Coordinates: 41° 44' 29.37" N, 74° 47' 04.99" W

Enforcement History

The facility received a stop work order on May 10, 2023, for violating conditions of the SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-20-001). On June 2, 2023, the Department issued the applicant a subsequent notice of violation for the construction of sewer infrastructure without first receiving a SPDES permit and plan approval from the Department. The June 2nd, notice of violation further noted that the applicant's stormwater pollution prevention plan (SWPPP) did not comply with GP-0-20-001 nor Article 17 of the Environmental Conservation Law. The facility was required to satisfy the following compliance actions:

- Submit a full SPDES PCI application and applications for any other permits necessary from this Department.
- Update the SWPPP for stormwater discharges.
- Develop and submit as-built plans of the already installed sewer and an engineering report, plans and specifications for any part of the sewer system that has yet to be installed.

Existing Effluent Quality

The [Pollutant Summary Table](#) presents the existing effluent quality and effluent limitations. The existing effluent quality was determined from the application submitted by the permittee.

Additional Site-Specific Concerns

The facility is located within the Bethel Principal Aquifer, at its northernmost region.

Receiving Water Information

The facility proposes to discharge via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	8999	Treated Sanitary Sewage	West Branch Mongaup River, Class B(T)

Reach Description: The facility proposes to discharge to an area that would direct flows toward the West Branch of the Mongaup River (D-10-22). The West Branch of the Mongaup River is located within the DRBC compact area. The West Branch of the Mongaup River extends from the site for approximately 5.4 miles until its confluence with the Upper Mongaup River, which is a tributary of the Delaware River. The segment of West Branch Mongaup River is class B with a B(T) standard at the point of discharge (6NYCRR 815.6 – Table I - Item 211). The classification remains B(T) within the reach of the Upper Mongaup River, for approximately 1.6 miles.

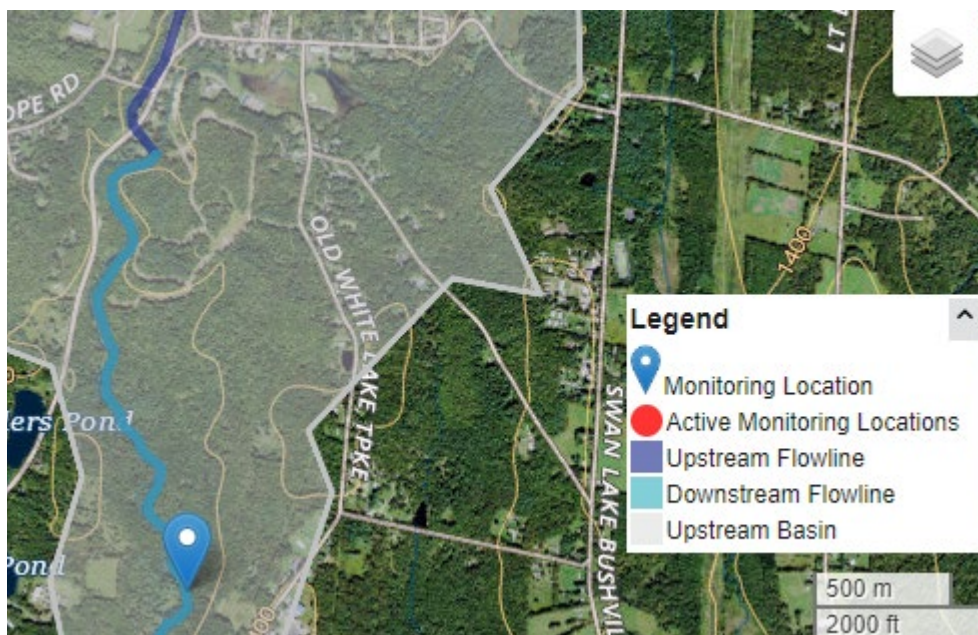


Figure 3: USGS Monitoring location approximately three quarters of a mile downstream of 001.

See the [Outfall and Receiving Water Summary Table](#) and [Appendix](#) for additional information.

Impaired Waterbody Information

The West Branch of the Mongaup River segment (PWL No. 1401-0061) is not listed on the 2018 [New York State Section 303\(d\) List](#) of Impaired/TMDL Waters, and therefore, there are no applicable wasteload allocations (WLAs) for this discharge.

Critical Receiving Water Data & Mixing Zone

The low flow estimates for the West Branch Mongaup River were obtained from a drainage basin ratio analysis using flow data at USGS gage station 01432900, Mongaup River at Mongaup

Valley, and the Swan Lake SD site. The proposed discharge site (for Swan in Swan Lake) is close to the Swan Lake SD, and therefore drainage for that site was used in computing the low flow statistics. The USGS Toolbox program was used in computing the 7Q10 and 30W10 flows. These are listed below along with pertinent information.

Gage Name: Mongaup River at Mongaup Valley
 Gage ID: 01432900
 Drainage Area at Gage (mi²): 76.9
 Drainage Area at Facility (mi²): 14.9
 7Q10 Flow at Gage (CFS): 12.31
 Calculated 7Q10 Flow at Facility (CFS): 2.39
 30Q10 Flow at Gage (CFS): 15.23
 Estimated 30Q10 (CFS): 2.95

Consistent with TOGS 1.3.1, the outfall information submitted in the application was reviewed. The data provided in the application indicated that the CORMIX model could not be used since the outfall terminated at the bank of the West Branch of Mongaup River. Due to low momentum of the discharge the waste plume would hug the shoreline and would flow along the bank of the stream minimizing the chances of complete mixing with the ambient water. Therefore, a minimum dilution of 5:1 based on best professional judgment (BPJ) is recommended.

Outfall No.	Acute Dilution Ratio A(A)	Chronic Dilution Ratio A(C)	Human, Aesthetic, Wildlife Dilution Ratio (HEW)	Basis
001	5:1	5:1	5:1	BPJ

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

Permit Requirements

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

[Appendix Link](#)

Antidegradation

The permit contains effluent limitations which ensure that the best usages of the receiving waters will be maintained. The Notice of Complete Application published in the Environmental Notice Bulletin contains information on the State Environmental Quality Review (SEQR)¹ determination. [Appendix Link](#)

Discharge Notification Act Requirements

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

Additionally, the permit contains a requirement to make the DMR sampling data available to the public upon request.

¹ As prescribed by 6 NYCRR Part 617

Schedule(s) of Compliance

A Schedule of Compliance is being included² for the following items ([Appendix Link](#)):

- Submittal of approvable engineering design documents, including a basis of design report, with details of the process units needed to comply with the final effluent limitations.
- In accordance with the approved schedule, the permittee shall construct the treatment facilities in accordance with the Department approved Design Documents.
- The permittee shall provide a Certificate of Completion to the Department that the disposal system has been fully completed in accordance with the approved Design Documents. Startup of the facility will be considered as 15 days after Department acceptance of the certificate.
- The permittee shall provide status updates and Interim Progress Report for design documents that include a WWTP design flow that accommodates a 66,000 GPD Monthly average flow.
- Submission of a Water Treatment Chemical (WTC) form for the use of Alum and any other water treatment chemical proposed to be used.

Schedule(s) of Additional Submittals

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

- Public notification: The permittee shall install an identification sign at the outfall 001 location. The sign shall be placed at or near the outfall and be easily readable by the public and follow the guidelines contained in this permit.
- 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.

Special Conditions

The following special conditions were included at the request of DRBC:

1. Prior to the permittee initiating any substantial alterations or additions to the existing WWTP as defined in Section 3.10.3A2.a.16) of the Delaware River Basin Commission's Water Quality Regulations (18CFR Part 410), a No Measurable Change to Existing Water Quality Analysis must be conducted by the Delaware River Basin Commission. The No Measurable Change to Existing Water Quality Analysis shall be conducted prior to final design to ensure that the Commission can provide the permittee with proposed effluent limitations to be included in a future SPDES permit for Special Protection Waters specific parameters as guidance for treatment design purposes. The permittee is encouraged to contact DRBC staff during the planning stages of any project that meets the definition of substantial alteration or additions, as per DRBC.
2. Except as otherwise authorized by this permit, if the permittee seeks relief from any limitation based upon a Delaware River Basin Commission water quality standard or minimum treatment requirement, the permittee shall apply for approval from the Delaware River Basin Commission Executive Director and NYSDEC for a permit revision.
3. Prior to accepting for treatment and discharge 50,000 gallons per day or more (as a daily average) of wastewater that is imported from outside the Delaware River Basin, the permittee shall first apply to and obtain approval from the Delaware River Basin Commission.

² Pursuant to 6 NYCRR 750-1.14

4. The permittee may conduct a study to determine if specific conductance may be substituted for TDS in the permit. The study should include effluent specific data to be used to determine a correlation between TDS and specific conductance. Upon review, the Delaware River Basin Commission will determine if the permit may be modified to allow the substitution of specific conductivity for TDS monitoring. The TDS limit would then be supplanted by a specific conductance limit in the permit.
5. The WWTP shall have available standby power facilities unless it can be shown that a proposed discharge can be interrupted for an extended period with no threat to the water quality of Delaware River Basin Commission (DRBC)-designated Special Protection Waters (SPW). 18 CFR Part 410 Section 3.10.3. A. 2.d.1.
6. In the event that the WWTP is not staffed 24 hours every day, the WWTP shall have a remote alarm that will continuously monitor plant operations whenever the plant is not staffed. The alarm system shall be designed to alert someone available with authority and knowledge to take appropriate action. 18 CFR Part 410 Section 3.10.3. A. 2.d.2.
7. The permittee shall prepare and implement an emergency management plan (EMP) following the guidance provided in the Water Pollution Control Federation's Manual of Practice SM-8, Emergency Planning for Municipal Wastewater Facilities, the U.S. EPA's Design Criteria for Mechanical, Electric and Fluid System and Component Reliability or other suitable manuals. Emergency management plans shall include an emergency notification procedure covering all affected downstream users. 18 CFR Part 410 Section 3.10.3. A. 2.d.4.
8. Based upon the written recommendation of the DRBC staff, when the discharge is operated in accordance with the provisions and conditions established by this permit, then with respect to effluent quality and stream quality objectives, the project does not substantially impair or conflict with the Commission's Comprehensive Plan.

OUTFALL AND RECEIVING WATER SUMMARY TABLE

Outfall	Latitude	Longitude	Receiving Water Name	Water Class	Water Index No. / Priority Waterbody Listing (PWL) No.	Major / Sub Basin	Hardness (mg/l)	1Q10 (MGD)	7Q10 (MGD)	30Q10 (MGD)	Critical Effluent Flow (GPD)	Dilution Ratio		
												A(A)	A(C)	HEW
001	41° 44' 29.37" N	74° 47' 04.99" W	West Branch Mongaup River	B(T)	D-10-22 PWL: 1401-0061	14 / 01	-	-	1.545	1.907	66,000	-	5:1*	5:1*

The effluent discharge is a bank discharge per MZ-data. The Mixing zone analysis using CORMIX model cannot be performed for this outfall configuration. For the noted case, the effluent plume is expected to flow along the shoreline, impacting the shoreline benthic aquatic life. Partial mixing will take place along the shoreline due to low momentum of the discharge. Therefore, a dilution of 5:1 is suggested (BPJ).

POLLUTANT SUMMARY TABLE: Outfall-001

Outfall #	Description of Wastewater: Treated Sanitary Sewage																
	Type of Treatment: Mechanical prescreening with flow equalization, extended aeration, and tertiary sand filters. Tablet feed for chlorination/de-chlorination																
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement		
			Permit Limit	Existing Effluent Quality ³	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL				
General Notes: Discharge data was obtained from the application provided by the permittee. All applicable water quality standards were reviewed for development of the WQBELs. The standard and WQBEL shown below represent the most stringent.																	
Flow Rate	GPD	Monthly Avg	-	-	-	66,000	Design Flow	Narrative: No alterations that will impair the waters for their best usages.						703.2	-	-	
The flow limit is set at the design flow of the wastewater treatment facility.																	
pH	SU	Minimum	-	-	-	6.0	TOGS 1.3.3	-	-	6.5 – 8.5	Range	-	-	-	WQBEL		
		Maximum	-	-	--	9.0		703.3									
Given the available dilution, an effluent limitation equal to the WQS is appropriate.																	
Temperature	°F	Daily Max	-	-	-	-	750-1.13 Monitor	-	No discharge at a temperature over 70F (21°C) shall be permitted at any time to streams classified for trout						704.2	-	704.2
		Consistent with 6 NYCRR 750-1.13(a), daily monitoring is required and may be used to inform future permitting decisions.															
Dissolved Oxygen	mg/L	Daily Min	-	-	-	-	-	>7.0 WQM	>7.0	5.0 mg/L	-	-	-	-	TBEL		

³ Existing Effluent Quality: Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)

Outfall #	001	Description of Wastewater: Treated Sanitary Sewage													
		Type of Treatment: Mechanical prescreening with flow equalization, extended aeration, and tertiary sand filters. Tablet feed for chlorination/de-chlorination													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ³	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
(DO) SUMMER 6/1 – 10/31	The downstream DO concentration was modeled using the Streeter-Phelps equations with the following assumptions: T=24°C, Effluent DO= 2.0 mg/l, Effluent UOD = 53.0 mg/L, Effluent BOD ₅ = 30/45 mg/L, Effluent NOD = 8.0 mg/L. The WQ model showed that DO standards are maintained and consequently WQBELs for DO and CBOD ₅ are unnecessary and the TBELs are protective of water quality. Ammonia limit is required to meet the toxic water quality standard and is indicated in this factsheet. In accordance with 6 NYCRR Part 703.3, the minimum daily average for trout waters shall at no time be less than 5.0 mg/L. WQM: Water Quality Model														
Dissolved Oxygen	mg/L	Daily Min	-	-	-	-	-	>7.0 WQM	>7.0	5.0 mg/L 703.3	-	-	703.3	-	TBEL
(DO) WINTER 11/1 – 5/31	The downstream DO concentration was modeled using the Streeter-Phelps equations with the following assumptions: T=10°C, Effluent DO= 2.0 mg/l, Effluent UOD= 58.20 mg/L, Effluent BOD ₅ = 30/45 mg/L, Effluent NOD= 13.2 mg/L. The WQ model showed that DO standards are maintained and consequently WQBELs for DO and CBOD ₅ are unnecessary and the TBELs are protective of water quality. Ammonia limit is required to meet the toxic water quality standard and is indicated in this factsheet. In accordance with 6 NYCRR Part 703.3, the minimum daily average for trout waters shall at no time be less than 5.0 mg/L. WQM: Water Quality Model														
5-day Biochemical Oxygen Demand (BOD ₅)	mg/L	Daily Max	-	-	-	30	TOGS 1.3.3	-	Dissolved Oxygen=4.0 Surrogate Standard 703.3	-	-	-	-	-	TBEL
		7 Day Avg	-	-	-	45	TOGS 1.3.3								
	lbs/d	Monthly Avg	-	-	-	16.5	TOGS 1.3.3								
		7 Day Avg	-	-	-	24.8	TOGS 1.3.3								
	% Rem	Minimum	-	-	-	85	ECL 17-0509								
See justification for Dissolved Oxygen.															
Total Suspended Solids (TSS)	mg/L	Daily Max	-	-	-	30	TOGS 1.3.3	-	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages. 703.2	-	-	-	-	-	TBEL
		7 Day Avg	-	-	-	45	TOGS 1.3.3								
	lbs/d	Monthly Avg	-	-	-	16.5	TOGS 1.3.3								
		7 Day Avg	-	-	-	24.8	TOGS 1.3.3								
	% Rem	Minimum	-	-	-	85	ECL 17-0509								
Consistent with TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. Given the available dilution, an effluent limitation equal to the TBEL, and consistent with TOGS 1.3.3, is protective of water quality standards.															
Settleable Solids	mL/L	Daily Max	-	-	-	0.1	TOGS 1.3.3	-	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.703.2	-	-	-	-	-	TBEL

Outfall #	Description of Wastewater: Treated Sanitary Sewage														
	Type of Treatment: Mechanical prescreening with flow equalization, extended aeration, and tertiary sand filters. Tablet feed for chlorination/de-chlorination														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ³	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Consistent with TOGS 1.3.3 the effluent limitation is equal to the TBEL of 0.1 mL/L. Given that adequate dilution is available the TBEL is protective of the WQS															
Nitrogen, Ammonia (as N)	mg/L	Daily Max	-	-	- /-	-	TOGS 1.3.1	1.16 NH3-T (WQM)	1.18	1.18	A(C)	1.0	TOGS 1.1.1	-	WQBEL
	lb/d	Daily Max	-	-	-	-	TOGS 1.3.1	-	-	-	-	0.57			
June 1 st – Oct. 31 st	The WQBEL was calculated using the water quality standard, model calculated upstream concentration of 1.16 NH3 as total and application of the HEW dilution ratio. The background concentration is from the Swan Lake SD located upstream of the proposed discharge was also considered.														
Nitrogen, Ammonia (as N)	mg/L	Daily Max	-	-	- /-	-	TOGS 1.3.1	2.17 NH3-T (WQM)	2.20	2.20	A(C)	1.91	TOGS 1.1.1	-	WQBEL
	lb/d	Daily Max	-	-	-	-	TOGS 1.3.1	-	-	-	-	1.05			
Nov. 1 st – May 31 st	The WQBEL was calculated using the water quality standard, model calculated upstream concentration of 1.16 NH3 as total and application of the HEW dilution ratio. The background concentration is from the Swan Lake SD located upstream of the proposed discharge was also considered.														
Total Phosphorus	mg/L	Monthly Avg	-	-	- /-	0.5	TOGS 1.3.6	Narrative: None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.				0.50	TOGS 1.3.6	-	TOGS 1.3.6
	lb/d	-	-	-	-	-	TOGS 1.3.6		0.275						
Since there are classified ponds downstream, and in accordance with TOGS 1.3.6 for discharges over 50,000 GPD, an effluent limit of 0.5 mg/L for total phosphorus is recommended.															
Coliform, Fecal	#/100 ml	30d Geo Mean	-	-	- /-	200	TOGS 1.3.3	-	Narrative: The monthly geometric mean, from a minimum of five examinations, shall not exceed 200.				703.4	-	TBEL
		7d Geo Mean	-	-	- /-	400	TOGS 1.3.3	-							
Consistent with TOGS 1.3.3, effluent disinfection is required seasonally from May 1st - October 31st, due to the class of the receiving waterbody. Fecal coliform limits equal to the TBEL are specified.															
Total Residual Chlorine (TRC)	mg/L	Daily Max	-	-	- /-	2.0	TOGS 1.3.3	0.001	0.005	0.005	A(C)	20.7	703.5	0.03	ML
	Effluent disinfection is currently required seasonally and will remain a permit requirement. The WQBEL was developed by multiplying WQ std, a dilution of 5:1. The background concentration of 1.085 ug/l was also considered. The calculated limit is less than the TBEL and less than the minimum level of detection. Therefore, an effluent limitation equal to the minimum level of detection of 0.030 mg/L is appropriate.														

Appendix: Regulatory and Technical Basis of Permit Authorizations

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

Regulatory References

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

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

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

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

Outfall and Receiving Water Information

Impaired Waters

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

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

Existing Effluent Quality

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

Permit Requirements

Basis for Effluent Limitations

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

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

Anti-backsliding

Anti-backsliding requirements are specified in the CWA sections 402(o) and 303(d)(4), ECL 17-0809, and regulations at 40 CFR 122.44(l) and 6 NYCRR 750-1.10(c) and (d). Generally, the relaxation of effluent limitations in permits is prohibited unless one of the specified exceptions applies, which will be cited on a case-by-case basis in this fact sheet. Consistent with current case law⁴ and USEPA interpretation⁵ 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

⁴ American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)

⁵ U.S. EPA, Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California; 65 Fed. Reg. 31682, 31704 (May 18, 2000); Proposed Water Quality Guidance for the Great Lakes System, 58 Fed. Reg. 20802, 20837 & 20981 (April 16, 1993)

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

Technology-based Effluent Limitations (TBELs)

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

Water Quality-Based Effluent Limitations (WQBELs)

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

Mixing Zone Analyses

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

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

Critical Flows

In accordance with TOGS 1.2.1 and 1.3.1, WQBELs are developed using dilution ratios that relate the critical low flow condition of the receiving waterbody to the critical effluent flow. The critical low flow condition used in the dilution ratio will be different depending on whether the limitations are for aquatic or human health protection. For chronic aquatic protection, the critical low flow condition of the waterbody is typically represented by the 7Q10 flow and is calculated as the lowest average flow over a 7-day consecutive period within 10 years. For acute aquatic protection, the critical low flow condition is typically represented by the 1Q10 and is calculated as the lowest 1-day flow within 10 years. However, NYSDEC considers using 50% of the 7Q10 to be equivalent to the 1Q10 flow. For the protection of human health, the critical low flow condition is typically

represented by the 30Q10 flow and is calculated as the lowest average flow over a 30-day consecutive period within 10 years. However, NYSDEC considers using $1.2 \times 7Q10$ 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.

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

discharges of conservative toxic pollutants to ensure water quality standards are met in downstream segments.

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

Schedules of Compliance

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

Schedule(s) of Additional Submittals

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