State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	**4952**	NAICS Code:	**221320**	SPDES Number:	**NY0160971**
Discharge Class (CL):		**07**		DEC Number:	**8-1830-00001/00001**
Toxic Class (TX):		**N**		Effective Date (EDP):	**EDP**
Major-Sub Drainage Basin:		**04 - 02**		Expiration Date (ExDP):	**ExDP**
Water Index Number:		**ONT 117-19 (Portion 3)**	Item No.: **821 – 19**	Modification Dates (EDPM):	
Compact Area:		**IJC**			

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

PERMITTEE NAME AND ADDRESS					
Name:	**Town of Byron**	Attention:	**Town Supervisor**		
Street:	**7028 Byron Holley Rd, PO Box 9**				
City:	**Byron**	State:	**NY**	Zip Code:	**14422**
Email:	**supervisor@byronny.com**	Phone:	**585-548-7123 Ext. 14**		

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL														
Name:	**Town of Byron Wastewater Treatment Facilities**													
Address / Location:	**7028 Byron Holley Rd, PO Box 9**									County:	**Genesee**			
City:	**Byron**					State:	**NY**			Zip Code:	**14422**			
Facility Location:		Latitude:	**43**	°	**04**	'	**58**	" N	& Longitude:	**78**	°	**03**	'	**60** " W
Primary Outfall No.:	**001**	Latitude:	**43**	°	**04**	'	**59**	" N	& Longitude:	**78**	°	**04**	'	**06** " W
Outfall Description:	**Treated Sanitary**	Receiving Water:	**Black Creek**						Class:	**C**		Standard:		**C**

and the additional outfalls listed in this permit, 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
EPA Region II (Region2_NPDES@epa.gov)
NYSEFC (sara.tully@efc.ny.gov)
DEC Water Quality Engineer (edward.schneider@dec.ny.gov)

Permit Administrator:	Ashley Rubacha
Address:	6274 East Avon-Lima Rd, Avon, NY 14414
Signature	Date

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SUMMARY OF ADDITIONAL OUTFALLS

Outfall	Wastewater Description	Outfall Latitude	Outfall Longitude
002	**Treated Sanitary**	**43** ° **03** ' **13** " N	**78** ° **04** ' **01** " W
Receiving Water:	**Black Creek**		Class: **C**
Outfall	Wastewater Description	Outfall Latitude	Outfall Longitude
003	Treated Sanitary	**43** ° **05** ' **38** " N	**78** ° **3** ' **59** " W
Receiving Water:	**Spring Creek**		Class: **C**

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 DEC review to determine if numerical effluent limitations should be imposed.
Compliance Level / Minimum Level	A compliance level is an effluent limitation. A compliance level is given when the water quality 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 DEC.
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.

EXISTING FACILITY PERMIT LIMITS, LEVELS AND MONITORING (001)

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
001	All Year	Black Creek	EDP	Construction Completion +3 months

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location Inf.	Location Eff.	
Flow	Monthly Average	0.053	MGD			Continuous	Recorder	X		1
pH	Daily Minimum	6.5	SU			1/week	Grab	X	X	1
	Daily Maximum	8.5	SU							
Temperature	Daily Maximum	Monitor	ºC			1/week	Grab	X	X	1
$CBOD_5$ (June 1st – Oct 31st)	Daily Maximum	15	mg/L	6.6	lbs/d	4/year	Grab	X	X	1,2
$CBOD_5$ (Nov 1st – May 31st)	Daily Maximum	25	mg/L	11.1	lbs/d	4/year	Grab	X	X	1,2
Total Suspended Solids (TSS) (June 1st – Oct 31st)	Daily Maximum	15	mg/L	6.6	lbs/d	4/year	Grab	X	X	1,2
Total Suspended Solids (TSS) (Nov 1st – May 31st)	Daily Maximum	30	mg/L	13.3	lbs/d	4/year	Grab	X	X	1,2
Settleable Solids	Daily Maximum	0.1	mL/L			1/week	Grab	X	X	1
Ammonia (as N) June 1st – October 31st	Daily Maximum	7.4	mg/L			4/year	Grab	X	X	1
Ammonia (as N) November 1st – May 31st	Daily Maximum	11.4	mg/L			4/year	Grab	X	X	1

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FINAL PERMIT LIMITS, LEVELS AND MONITORING (001)

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
001	All Year	Black Creek	Construction Completion +3 months[3]	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location Inf.	Location Eff.	
Flow	Monthly Average	0.085	MGD			Continuous	Recorder	X		3
pH	Daily Minimum	6.5	SU			5/week	Grab	X	X	3
	Daily Maximum	8.5	SU							
Temperature	Daily Maximum	Monitor	ºC			5/week	Grab	X	X	3
$CBOD_5$	Daily Maximum	15	mg/L	6.6	lbs/d	Quarterly	Grab	X	X	2,3,4
Total Suspended Solids (TSS)	Daily Maximum	15	mg/L	6.6	lbs/d	Quarterly	Grab	X	X	2,3,4
Settleable Solids	Daily Maximum	0.1	mL/L			5/week	Grab	X	X	3
Dissolved Oxygen	Daily Minimum	Monitor	mg/L			Quarterly	Grab		X	3,4
Ammonia (as N) June 1st – October 31st	Daily Maximum	1.4	mg/L			4/year	Grab	X	X	3
Ammonia (as N) November 1st – May 31st	Daily Maximum	2.1	mg/L			4/year	Grab	X	X	3
Total Phosphorus	Monthly Average	Monitor	mg/L			Quarterly	Grab		X	3,4

EFFLUENT DISINFECTION Required Seasonal from May 1st - October 31st		Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Coliform, Fecal	30-Day Geometric Mean	200	No./ 100 mL			1/month	Grab		X	3
Coliform, Fecal	7-Day Geometric Mean	400	No./ 100 mL			1/month	Grab		X	3
Chlorine, Total Residual	Daily Maximum	0.03	mg/L			1/day	Grab		X	3,5

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PERMIT LIMITS, LEVELS AND MONITORING (002)

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
002	All Year	Black Creek	EDP	Upon Outfall Closure[5]

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
								Location		
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	
Flow	Monthly Average	0.025	MGD			Continuous	Recorder	X		6
pH	Daily Minimum	6.5	SU			1/week	Grab	X	X	6
	Daily Maximum	8.5	SU							
Temperature	Daily Maximum	Monitor	ºC			1/week	Grab	X	X	6
$CBOD_5$ (June 1st – Oct 31st)	Daily Maximum	15	mg/L	3.13	lbs/d	2/year	Grab	X	X	2,6
$CBOD_5$ (Nov 1st – May 31st)	Daily Maximum	25	mg/L	5.21	lbs/d	2/year	Grab	X	X	2,6
Total Suspended Solids (TSS) (June 1st – Oct 31st)	Daily Maximum	15	mg/L	3.13	lbs/d	2/year	Grab	X	X	2,6
Total Suspended Solids (TSS) (Nov 1st – May 31st)	Daily Maximum	30	mg/L	6.26	lbs/d	2/year	Grab	X	X	2,6
Settleable Solids	Daily Maximum	0.1	mL/L			1/week	Grab	X	X	6
Ammonia (as N) June 1st – October 31st	Daily Maximum	6.6	mg/L			2/year	Grab	X	X	6
Ammonia (as N) November 1st – May 31st	Daily Maximum	12.3	mg/L			2/year	Grab	X	X	6

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PERMIT LIMITS, LEVELS AND MONITORING (Outfall 003)

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
003	All Year	Spring Creek	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location Inf.	Location Eff.	
Flow	Monthly Average	0.006	MGD			Continuous	Recorder	X		
pH	Daily Minimum	6.5	SU			5/week	Grab	X	X	7
	Daily Maximum	8.5	SU							
Temperature	Daily Maximum	Monitor	°C			5/week	Grab	X	X	7
$CBOD_5$ (June 1st – Oct 31st)	Daily Maximum	15	mg/L	0.75	lbs/d	2/year	Grab	X	X	2
$CBOD_5$ (Nov 1st – May 31st)	Daily Maximum	25	mg/L	1.26	lbs/d	2/year	Grab	X	X	2
Total Suspended Solids (TSS) (June 1st – Oct 31st)	Daily Maximum	15	mg/L	0.75	lbs/d	2/year	Grab	X	X	2
Total Suspended Solids (TSS) (Nov 1st – May 31st)	Daily Maximum	30	mg/L	1.5	lbs/d	2/year	Grab	X	X	2
Settleable Solids	Daily Maximum	0.1	mL/L			5/week	Grab	X	X	7
Ammonia (as N) June 1st – October 31st	Daily Maximum	6.6	mg/L			2/year	Grab	X	X	
Ammonia (as N) November 1st – May 31st	Daily Maximum	11.4	mg/L			2/year	Grab	X	X	

FOOTNOTES:

1. The existing limitations for Outfall 001 will be effective until three (3) months after construction completion of the proposed project. See Schedule of Compliance.

2. Effluent shall not exceed 15% and 15% of influent concentration values for $CBOD_5$ & TSS respectively.

3. The final limitations for Outfall 001 are for the consolidated system and shall become effective three (3) months after the wastewater treatment plant upgrades are complete. See Schedule of Compliance.

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).

5. Sampling and reporting for total residual chlorine (TRC) are only necessary if chlorine is used for disinfection, elsewhere in the treatment process, or the facility otherwise has reasonable potential to discharge chlorine. Otherwise, the permittee shall report NODI-9 on the DMR.

6. Outfall 002 must be closed in accordance with 6 NYCRR 750-2.11. The limitations for Outfall 002 shall be discontinued upon Department acceptance of the final closure report, which summarizes and documents the disposal system has been closed, and final site inspection by the Department.

7. This is the final sampling frequency. The interim sampling frequency of 1/week for pH, temperature, and Settleable Solids for Outfall 003 shall remain effective until three (3) months after construction completion of the proposed project.

MERCURY MINIMIZATION PROGRAM (MMP) - Type IV

On 02/20/2021, 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. General - 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[1] as described in detail below:

    a. Conditional Exclusion Certification - 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 neither a mercury source nor receives 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)[2] communities and/or 2) Type II sanitary sewer overflow (SSO)[3] 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 **AND** 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)[4] 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. Equipment and Materials – 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. Bulk Chemical Evaluation – 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.

[1] 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.
[2] CSO permits are included under the 05 and 07 permit classifications.
[3] These are overflow retention facilities (ORFs) and are included under the 05 and 07 permit classifications.
[4] CIUs include those listed under Federal Regulation in 40 CFR Part 400.

MERCURY MINIMIZATION PROGRAM (MMP) – Type IV (Continued)

c. **Status Report** - An **annual** status report must be developed and maintained on site, in accordance with the Schedule of Additional Submittals, 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 DEC 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 on-site a file with all MMP documentation. The file must be available for review by DEC 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 DEC 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.

DISCHARGE NOTIFICATION REQUIREMENTS

(a) The permittee shall install and maintain identification signs at all outfalls to surface waters listed in this permit, unless the Permittee has obtained a waiver in accordance with the Discharge Notification Act (DNA). Such signs shall be installed before initiation of any new discharge location.

(b) Subsequent modifications to or renewal of this permit does not reset or revise the deadline set forth in (a) above, unless a new deadline is set explicitly by such permit modification or renewal.

(c) The Discharge Notification Requirements described herein do not apply to outfalls from which the discharge is composed exclusively of storm water, or discharges to ground water.

(d) The sign(s) shall be conspicuous, legible and in as close proximity to the point of discharge as is reasonably possible while ensuring the maximum visibility from the surface water and shore. The signs shall be installed in such a manner to pose minimal hazard to navigation, bathing or other water related activities. If the public has access to the water from the land in the vicinity of the outfall, an identical sign shall be posted to be visible from the direction approaching the surface water.

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

N.Y.S. PERMITTED DISCHARGE POINT

SPDES PERMIT No.: NY_____

OUTFALL No. :____

For information about this permitted discharge contact:

Permittee Name: _____

Permittee Contact: _____

Permittee Phone: ( ) - ### - ####

OR:

NYSDEC Division of Water Regional Office Address:

NYSDEC Division of Water Regional Phone: ( ) - ### - ####

(e) Upon request, the permittee shall make available electronic or hard copies of the sampling data to the public. In accordance with the RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS page of your permit, each DMR shall be maintained (either electronically or as a hard copy) on record for a period of five years.

(f) The permittee shall periodically inspect the outfall identification sign(s) in order to ensure they are maintained, are still visible, and contain information that is current and factually correct. Signs that are damaged or incorrect shall be replaced within 3 months of inspection.

SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

Outfall(s)	Compliance Action	Compliance Date[5]
001 & 002	DESIGN DOCUMENTS 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 Fecal Coliform.	October 1, 2025
	INTERIM PROGRESS REPORT The permittee shall provide a status update for *Complete Construction*.	EDP + 6 Months EDP + 12 Months
	COMPLETE CONSTRUCTION The permittee shall provide a Construction Completion Certification[6] to the DEC (send to the Regional Water Engineer and NetDMR@dec.ny.gov) that the treatment system has been fully completed in accordance with the approved Design Documents.	December 31, 2026
	STARTUP OF NEW FACILITY The final effluent limitation(s) for Outfall 001 shall become effective 3 months after construction completion. The final effluent limitations for Outfall 001 shall be monitor only until the effluent limitations take effect.	April 1, 2027
002	OUTFALL CLOSURE The permittee must provide documentation demonstrating the outfall has been closed in accordance with 6 NYCRR 750-2.11.	Upon Department Acceptance
Unless noted otherwise, the above actions are one-time requirements.		

b) The permittee shall submit a Report of Non-Compliance Event form with each of the above schedule dates no later than 14 days following each elapsed date, unless conditions require more immediate notice as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2. All notifications shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of non-compliance shall include the following information:

1. A short description of the non-compliance;
2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirements without further delay and to limit environmental impact associated with the non-compliance;
3. Any details which tend to explain or mitigate an instance of non-compliance; and
4. An estimate of the date the permittee will comply with the elapsed schedule requirement and an assessment of the probability that the permittee will meet the next scheduled requirement on time.

c) The permittee shall submit copies of any document required by the above schedule of compliance to the DEC Regional Water Engineer and to the Bureau of Water Permits.

[5] 6 NYCRR 750-1.14 (a)
[6] 6 NYCRR 750-2.10 (c)

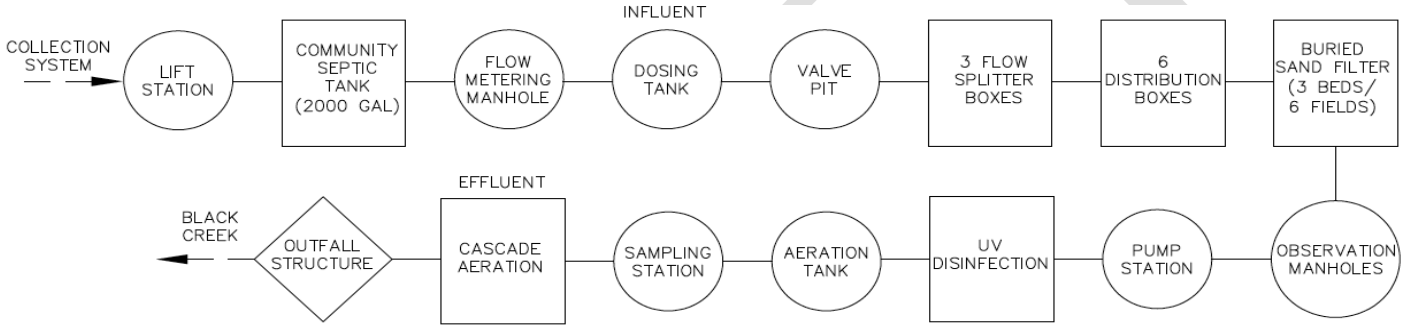
EXISTING MONITORING LOCATIONS

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

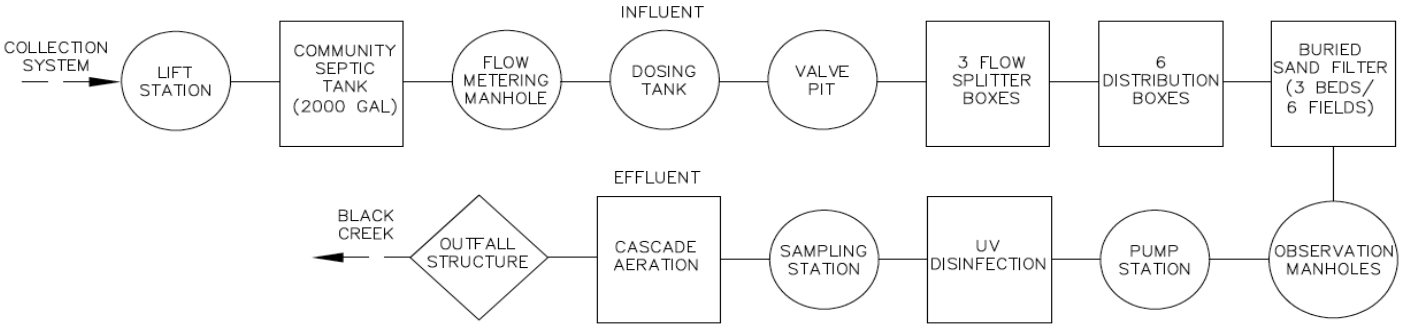
Influent: 001, 002, 003

Effluent: 001, 002, 003

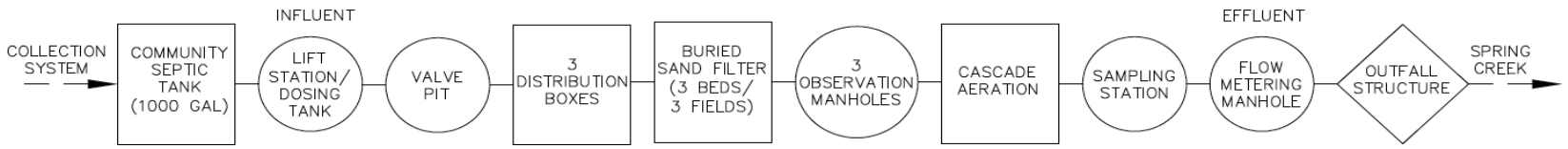
OUTFALL 001
CENTRAL BYRON



OUTFALL 002
SOUTH BYRON



OUTFALL 003
NORTH BYRON



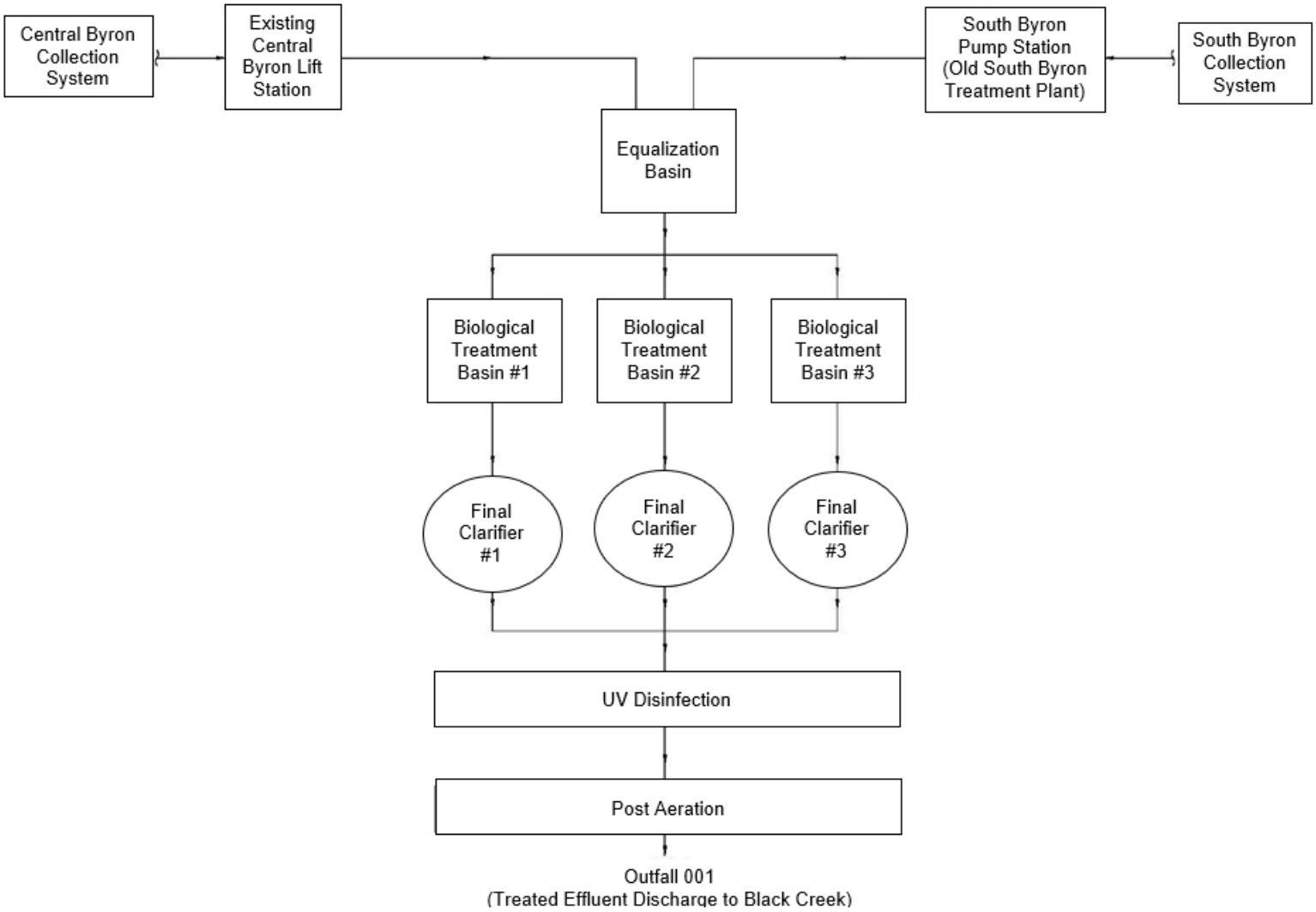
FINAL MONITORING LOCATIONS

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

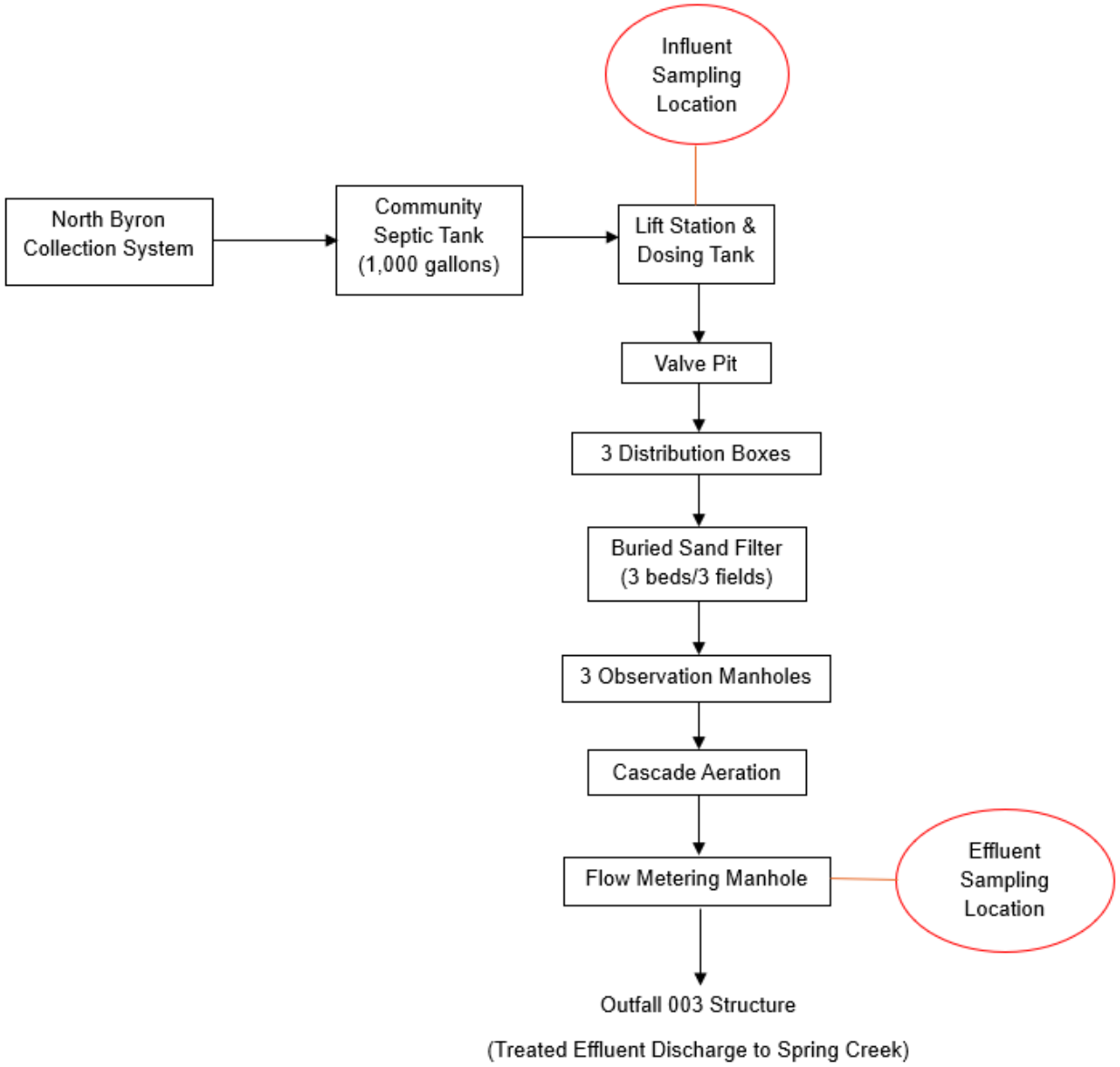
Influent: 001, 003

Effluent: 001, 003

Outfall 001 (Central Byron):



Outfall 003 (North Byron):



GENERAL REQUIREMENTS

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

B. General Conditions

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

C. Operation and Maintenance

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

D. Monitoring and Records

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

E. Reporting Requirements

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

F. Planned Changes

1. In accordance with 6 NYCRR 750-2.7, the permittee shall give notice to the DEC at least 45 days prior to planned physical alterations or additions to the permitted facility when:

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

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

GENERAL REQUIREMENTS (continued)

2. Notification Requirement for POTWs
   All POTWs shall provide adequate notice to the Department and the USEPA of the following:

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

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

G. Sludge Management
   The permittee shall comply with all applicable requirements of 6 NYCRR Part 360 series.

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

I. Water Treatment Chemicals (WTCs)
   New or increased use and discharge of a WTC requires prior DEC review and authorization. At a minimum, the permittee must notify the DEC in writing of its intent to change WTC use by submitting a completed *WTC Notification Form* for each proposed WTC. The DEC will review that submittal and determine if a SPDES permit modification is necessary or whether WTC review and authorization may proceed outside of the formal permit administrative process. The majority of WTC authorizations do not require SPDES permit modification. In any event, use and discharge of a WTC shall not proceed without prior authorization from the DEC. Examples of WTCs include biocides, coagulants, conditioners, corrosion inhibitors, defoamers, deposit control agents, flocculants, scale inhibitors, sequestrants, and settling aids.
   1. WTC use shall not exceed the rate explicitly authorized by this permit or otherwise authorized in writing by the DEC.
   2. The permittee shall maintain a logbook of all WTC use, noting for each WTC the date, time, exact location, and amount of each dosage, and, the name of the individual applying or measuring the chemical. The logbook must also document that adequate process controls are in place to ensure that excessive levels of WTCs are not used.
   3. The permittee shall submit a completed WTC Annual Report Form each year that they use and discharge WTCs. This form shall be submitted in electronic format and attached to either the December DMR or the annual monitoring report required below. The *WTC Notification Form and WTC Annual Report Form* are available from the DEC's website at: 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 DEC 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 DEC's website.

DMRs must be submitted electronically using the electronic reporting tool (NetDMR) specified by DEC. Instructions on the use of NetDMR can be found at: How To Complete And Submit Discharge Monitoring Reports (DMRs) - NYSDEC. **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 8
6274 E. Avon-Lima Road, Avon, New York, 14414-9519 Phone: (585) 226-5450

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

E. Schedule of Additional Submittals:

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

SCHEDULE OF ADDITIONAL SUBMITTALS		
Outfall(s)	**Required Action**	**Due Date**
001 002 003	ANNUAL FLOW CERTIFICATION The permittee shall submit an Annual Flow Certification form each year in accordance with 750-2.9(C)(4). The form shall be attached to the February DMR or submitted through nForm.	February DMR (March 28th)
001 002 003	MERCURY MINIMIZATION PLAN The permittee must complete and maintain onsite a mercury minimization plan and subsequent annual mercury minimization status reports in accordance with the requirements of this permit.	***Maintained Onsite*** EDP + 12 months, annually thereafter

SCHEDULE OF ADDITIONAL SUBMITTALS		
Outfall(s)	**Required Action**	**Due Date**
001 002 003	MERCURY - CONDITIONAL EXCLUSION CERTIFICATION Permittee must submit a mercury conditional exclusion certification every five years in order to maintain MMP Type IV status. As part of the certification the permittee will be required to sample the effluent and measure <12 ng/L.	02/20/2026, and every 5 years thereafter
001 003	EMERGING CONTAMINANT SHORT-TERM MONITORING PROGRAM The permittee shall collect grab samples of both the influent and effluent from the facility's treatment system(s) associated with the identified outfall for Per-and Polyfluoroalkyl Substances (PFAS) and 1,4-Dioxane (1,4-D), unless permittee receives written notification from the DEC during this time that sampling can be discontinued. Samples must be analyzed utilizing EPA method 1633 and EPA Method 8270D SIM or 8270E SIM, respectively. The samples must represent normal discharge conditions and treatment operations and shall be obtained on a quarterly basis for at least 4 consecutive quarters, unless written notification from the DEC indicates otherwise. Emerging Contaminants results must be reported utilizing the template provided and should be kept on file with the permittee until all 4 sampling event results are obtained. Once all 4 sampling event results are received, they shall be reported together to the DEC through the "Emerging Contaminants Survey for POTWs" found at: Emerging Contaminants In NY's Waters - NYSDEC. The template, instructions for the laboratory, and chain of custody form are also available at this link. If results indicate the presence of Emerging Contaminants, the permittee shall initiate track down of potential sources by completing the "Emerging Contaminants Investigation Checklist for POTWs" available at the above link. The DEC may periodically request updates or additional monitoring to check progress on track down investigations. Elements of the checklist may be used as permit conditions in future permit modifications.	After Outfall 001 has Commenced Operation Within 90 days of DEC written notification

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

F. Monitoring and analysis shall be conducted using sufficiently sensitive test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

G. More frequent monitoring of the discharge(s), monitoring point(s), or waters of the State than required by the permit, where analysis is performed by a certified laboratory or where such analysis is not required to be performed by a certified laboratory, shall be included in the calculations and recording of the data on the corresponding DMRs.

H. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

I. Unless otherwise specified, all information recorded on the DMRs shall be based upon measurements and sampling carried out during the most recently completed reporting period.

J. Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section 502 of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be directed to the New York State Department of Health, Environmental Laboratory Accreditation Program.

SPDES Permit Fact Sheet
Town of Byron
Town of Byron Wastewater Treatment Facility
NY0160971

Contents

Summary of Permit Changes

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

- Updated the permit format, definitions, and general conditions
- Updated the permittee name to "Town Supervisor"
- Updated the Schedule of Compliance to align with the current construction schedule and extended the "Complete Construction and Commence Operation" schedule date to 12/31/2026
- Added facility location coordinates
- Two permit limitation tables for Outfall 001 are included in the permit for the existing design flow and the proposed flow expansion after construction completion
- Updated the final permit limit for monthly average flow rate at Outfall 001 from 0.053 MGD to 0.085 MGD
- Updated the final permit limit for ammonia (June 1st to October 31st) at Outfall 001 from 7.4 mg/L to 1.4 mg/L
- Updated the final permit limit for ammonia (November 1st to May 31st) at Outfall 001 from 11.4 mg/L to 2.1 mg/L
- Added phosphorus monitoring requirement at Outfall 001
- Combined seasonal limits for CBOD at Outfall 001
- Combined seasonal limits for TSS at Outfall 001
- Added expiration for Outfall 002 permit limits since this outfall will be decommissioned after construction completion
- Consolidated interim and final permit limits for Outfall 003 since this outfall will remain the same (Permit limits for Outfall 003 are summarized in the 2021 fact sheet/permit)
- Added requirement for Emerging Contaminant Short-Term Monitoring

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

Administrative History

1/1/2022	The last full technical review was performed and the SPDES permit became effective with a new five-year term and expiration date of 12/31/2026. The 2022 permit, along with all subsequent modifications, has formed the basis of this permit.
1/1/2022	Permit was modified to include a requirement for seasonal disinfection, fecal coliform effluent limits, ammonia limit changes, and Dissolved Oxygen (DO) monitoring requirements.
12/19/2024	The Town of Byron submitted a request to modify the permit to extend their schedule of compliance for effluent disinfection.
2/19/2025	DEC issued a Request for Information (RFI) to modify and renew the SPDES permit due to the proposed treatment upgrades and consolidation of Outfall 001 and Outfall 002.

5/15/2025 The Town of Byron submitted a complete NY-2A 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 facility is a publicly owned treatment works that receives flow from domestic users, with effluent consisting of treated sanitary. The collection system consists of separate sewers. This facility does not have any significant industrial users (SIUs).

The Town is planning to consolidate the South Byron (Outfall 002) facility and the Central Byron (Outfall 001) facility into one Wastewater Treatment Plant at the Central Byron facility location. Consolidation will include:

- Installation of a pump station at South Byron with a force main from South Byron to Central Byron
- Upgrading the existing lift station at Central Byron
- A “package plant” fixed-film, aerobic treatment system providing BOD removal and nitrification, along with secondary clarification, post-aeration, and chemical bulk storage and feed equipment.
- Ultraviolet (UV) Disinfection Improvements
- Closure/decommissioning of South Byron facility and Outfall 002 upon completion of the package plant

Sludge will continue to be hauled away for additional treatment and disposal.

The package plant is planning to utilize the existing Outfall 001 pipe which discharges along the bank of Black Creek (PWL ID #0402-0028).

No changes are proposed for Outfall 003; therefore, Outfall 003 will not be assessed during this full technical review.

Site Overview

Figure 1: The Town of Byron WWTF consists of three physically separate facilities combined into one SPDES permit. Outfall 001 is near Central Byron, Outfall 002 is near South Byron, and

Outfall 003 is near Pumpkin Hill on Spring Creek, which is a tributary of Black Creek. A new pump station will be constructed at South Byron (Outfall 002) to direct flows from South Byron to Central Byron. This will result in the consolidation of Outfall 001 and Outfall 002, reducing the Town's number of discharge points from three to two. Outfall 003 will remain the same and not be discussed further.

Figure 2: Byron WWTF Outfall 001 discharges to Black Creek (Class C, PWL ID #0402-0028). Please note that the Latitude and Longitude mentioned in the previous permit is incorrect. Actual Outfall Latitude and Longitude are as follows: Latitude = 43° 04' 59"N, Longitude= 78° 04' 06"W.

Figure 3: Byron WWTF Outfall 002 is near South Byron and discharges to Black Creek (Class C, PWL ID #0402-0028). Please note that the Latitude and Longitude mentioned in the previous permit is incorrect. Actual Outfall Latitude and Longitude are as follows: Latitude = 43° 03' 13" N, Longitude = 78° 04' 01" W. A new pump station will be constructed at South Byron (Outfall 002) to direct flows from South Byron to Central Byron. This outfall is to be abandoned once the WWTP upgrades are complete.

Enforcement History

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

Existing Effluent Quality

The Pollutant Summary Table presents the existing effluent quality and effluent limitations. The existing effluent quality was determined from Discharge Monitoring Reports submitted by the permittee for the period 1/1/2022 to 3/31/2025. Appendix Link

Interstate Water Pollution Control Agencies

Outfalls 001 is located within the Great Lakes watershed and International Joint Commission (IJC) compact area and are subject to 40 CFR Part 132. Appendix Link

Receiving Water Information

The facility discharges via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	4592	Treated Sanitary Sewage	Black Creek, Class C

For this review, only Outfall 001 was considered.

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

Impaired Waterbody Information

The Black Creek segment (PWL No. 0402-0028) was first listed on the 2014 New York State Section 303(d) List of Impaired/TMDL Waters as impaired due to Nutrients (Phosphorus). The segment continues to be listed as of the 2020/2022 NYS Section 303(d) List. Although a draft TMDL has been developed to address the impairment in 2013, this draft TMDL has ***not** been submitted to EPA for approval,* and, therefore, there are no applicable wasteload allocations (WLAs) for this facility.

Critical Receiving Water Data & Mixing Zone

Reach Description: Outfall 001 discharges into Black Creek and flows approximately 2.9 miles downstream and before Spring Creek enters Black Creek.

The low flow condition for the Black Creek was obtained from a drainage basin ratio analysis with USGS gage station 04231000, Black Creek at located Churchville NY. The 7Q10 flow and drainage area at the gage were found from the “Low-Flow Statistics for Selected Streams in New York, Excluding Long Island” (SIR 2024-5055).

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

Gage Name: Black Creek at Churchville NY
Gage ID: 04231000
Drainage Area at Gage (mi^2): 130
Drainage Area at Facility (mi^2): 44.7
7Q10 Flow at Gage (CFS): 1.3 Source: SIR 2024-5055
30Q10 Flow at Gage (CFS): 3.0 Source: SIR 2024-5055
Calculated 7Q10 Flow at Facility (CFS): 0.45
Calculated 30Q10 Flow at Facility (CFS): 1.0
Estimated 1Q10 (CFS): 0.23 (1/2 of 7Q10)

The outfall is located on the bank, reducing the overall velocity of the discharge entering the receiving water. This causes the effluent plume to attach to the bank and greatly reduces mixing potential. Dilution modeling conducted in similar scenarios consistently supports dilution ratios of no more than 5:1. Because water quality standards are not anticipated to be met within the mixing zone and the in-stream plume may impact the benthic aquatic organisms along the bank, a conservative dilution ratio of 2:1 based on best professional judgment, is appropriate for the protection of aquatic life, sources of drinking water, human consumption of fish, aesthetics, and wildlife.

Outfall No.	Acute Dilution Ratio A(A)	Chronic Dilution Ratio A(C)	Human, Aesthetic, Wildlife Dilution Ratio (HEW)	Basis
001	2:1	2:1	2:1	TOGS 1.3.1 BPJ

Image 1: Byron WWTF Outfall 001 discharges to Black Creek (Class C, PWL ID #0402-0028). This image of the outfall being unsubmerged was taken on May 05, 2025.

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 has been 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 has been continued from the previous permit.

Mercury[2]

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

The facility is a municipal (07) located in the Great Lakes Basin without a mercury source, therefore, it is MMP Type IV. On 02/24/2021, 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. 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 re-certification, the effluent must be sampled and measure <12 ng/L. This requirement has been updated from the previous permit.

Schedule of Compliance

A modified Schedule of Compliance has been included[3] for the following items (Appendix Link):

- Implementing Disinfection

Items in the Schedule of Compliance:

- Submit approvable engineering plans, specifications, and construction schedule for disinfection.
- Complete construction and commence operation of the system and comply with final effluent limitations for Fecal Coliform and TRC.

Emerging Contaminant Monitoring

Emerging Contaminants, such as Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonic acid (PFOS), and 1,4-Dioxane (1,4-D), have been used in a wide variety of consumer and industrial product as well as in manufacturing processes for decades. These contaminants do not break down easily, therefore their presence in wastewater can remain a concern for years following their discontinued use. As the science surrounding these contaminants is still evolving, additional monitoring is needed to better understand potential sources and background levels. For more

[1] As prescribed by 6 NYCRR Part 617
[2] In accordance with DOW 1.3.10 Mercury – SPDES Permitting & Multiple Discharge Variance (MDV), December 30, 2020.
[3] Pursuant to 6 NYCRR 750-1.14

information on emerging contaminants, please see the DEC Division of Water web page: Emerging Contaminants In NY's Waters - NYSDEC.

Required Sampling: Pursuant to 6 NYCRR Part 750-1.13(b), the permit includes a short-term monitoring program listed in the Schedule of Additional Submittals to evaluate the influent and effluent discharge levels of Per-and Polyfluoroalkyl Substances (PFAS) and 1,4-Dioxane. This monitoring program is consistent with guidance released in EPA guidance memos dated April 28, 2022, and December 5, 2022.

The DEC will review the monitoring results and pursuant to 6 NYCRR 750-2.1(i) may notify the permittee of the need for further monitoring to identify potential sources as specified in the Emerging Contaminants Investigation Checklist for POTWs to determine whether cause exists to modify the permit to incorporate a pollutant minimization program per 6 NYCRR 750-1.14(f).

The DEC will consider this information and progress made to track down and reduce or eliminate the source of the identified pollutants in determining if a permit modification is needed.

Schedule of Additional Submittals

A Schedule of Additional Submittals has been included for the following (Appendix Link):

- Mercury Minimization Program Annual Status Report (maintained onsite)
- Mercury Conditional Exclusion Certification
- Emerging Contaminant Short Term Monitoring
- Annual Flow Certification

Permittee: Town of Byron
Facility: Town of Byron Wastewater Treatment Facility
SPDES Number: NY0160971
USEPA Non-Major/Class 07 Municipal

Date: September 11, 2025 v.1.29
Permit Writer: Ronnie Held
Water Quality Reviewer: Edward Schneider
Full Technical Review

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 (CFS)	7Q10 (CFS)	30Q10 (CFS)	Critical Effluent Flow (MGD)	Dilution Ratio		
												A(A)	A(C)	HEW
001 (Existing)[4]	43° 04' 59" N	78° 04' 06" W	Black Creek	C	Ont 117-19 (Portion 3) PWL: 0042-0028*	04/02	-	0.139	0.253	0.299	0.053	3.4:1	5.8:1	6.7:1
002 (Existing)[4]	43° 03' 13" N	78° 04' 01" W	Black Creek	C	Ont 117-19 (Portion 3) PWL: 0042-0028	04/02	-	0.076	0.152	0.182	0.025	4:1	7.1:1	8.3:1
001 (Consolidated)	43° 04' 59" N	78° 04' 06" W	Black Creek	C	Ont 117-19 (Portion 3) PWL: 0042-0028	04/02	-	0.23	0.45	1.0	0.085	2:1	2:1	2:1

*Dilution with 002 effluent added to stream (+0.025 MGD)

Pollutant Summary Table

Outfall 001 (Existing)

Outfall #	001 (Existing)	**Description of Wastewater:** Residential Wastewater														
		Type of Treatment: Community septic system, dosing tank, distribution boxes, buried sand filters, and cascade aeration														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[5]	# 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: Existing discharge data from 8/2014 to 8/2019 was obtained from Discharge Monitoring Reports provided on EPA ICIS.															
Flow Rate	MGD	Monthly Avg	0.053	0.03 Actual Avg.	61/0	**0.053**	Design Flow	Narrative: No alterations that will impair the waters for their best usages.					703.2	-	TBEL
	Consistent with TOGS 1.3.3, a monthly average flow limitation equal to the average daily design capacity of the treatment plant is specified. (TBEL as design flow likely)														
pH	SU	Minimum	6.5	6.88 Actual Avg.	61/0	6.0	TOGS 1.3.3	-	6.5 – 8.5	6.5 – 8.5	Range	6.5 - 8.5	703.3	-	WQBEL
		Maximum	8.5	7.12 Actual Avg.	61/0	9.0									
	The WQBEL based on Class C stream standards														

[4] Pollutant Summary Table information for existing outfalls 001 and 002 gathered from the Town of Byron Wastewater Treatment Facility Fact Sheet dated 08/26/2021.
[5] 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 (Existing)	**Description of Wastewater:** Residential Wastewater														
		Type of Treatment: Community septic system, dosing tank, distribution boxes, buried sand filters, and cascade aeration														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[5]	# 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		
Temperature	°C	Daily Max	Monitor	14.98 Actual Average	61/0	-	-	Narrative (Non-Trout): The water temperature at the surface of a stream shall not be raised to more than 90F at any point and... shall not be raised or lowered to more than 5F over the temperature that existed before the addition					704.2	-	Monitor
	Monitoring is required for process control and informational purposes. Summer effluent temp avg on NY-2A was **19.3C** – this used for RSAT Model														
Dissolved Oxygen (DO)	mg/L	Daily Min	-	-	-	-	-	-	4.0	4.0	Narrative	7.0 min.	703.3	-	WQBEL
	The downstream DO concentration was modeled using the Streeter-Phelps equations in a model using the following assumptions: 'f factor of 2' from WQMP Summer Effluent DO = 7.0 mg/l, actual effluent temp of 19.3 C (from NY-2A) in summer, and CBOD5 = 15 and NOD=54.1 mg/l Winter Effluent DO = 0, Effluent temp = 10C, and CBOD5 = 25 mg/l The Summer Effluent Limit will be DO=7mg/L; Winter Effluent Limit DO=Monito**r.**														
5-day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)	Summer mg/L	Daily Max	15	2.33 Actual Average	6/20	15	Antibacksliding	-	See Dissolved Oxygen			**15**	703.3 DO	-	WQBEL
	Winter mg/l	Daily Max	25	2.86 Actual Average	14/17	25	TOGS 1.3.3					**25**			
	Summer lbs/d	Daily Max	6.6	0.49 Actual Average	6/20	6.6	Antibacksliding					-			
	Winter lbs/d	Daily Max	11.1	0.85 Actual Average	14/21	11.1	TOGS 1.3.3					-			
	% Rem	Minimum	85	99.5 Actual Average	61/0	85%	TOGS 1.3.3					**85**			
	Consistent with the present CBOD permit limit in the previous permit. The downstream DO concentration was modeled using the Streeter-Phelps equations used in DO sag water quality models using the assumptions for stream temperatures found in TOG 1.3.1. Effluent evaluated using a Streeter Phelps Equation model. Other model assumptions are discussed in the receiving water narrative section of this fact sheet. TBEL: 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). These requirements are summarized in TOGS 1.2.1. 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. Antibacksliding for Summer CBOD5.														

Outfall #	001 (Existing)	**Description of Wastewater:** Residential Wastewater													
		Type of Treatment: Community septic system, dosing tank, distribution boxes, buried sand filters, and cascade aeration													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[5]	# 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		
Total Suspended Solids (TSS)	Summer mg/L	Daily Max	15	11.48 99% Delta Log-Normal	10/13	**15**	Antibacksliding	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.			-	703.2	-	TBEL
	Winter mg/l	Daily Max	30	14.78 99% Delta Log-Normal	16/19	**30**	TOGS 1.3.3								
	Summer lbs/d	Daily Max	6.6	4.0 99% Delta Log-Normal	15/11	**6.6**	Antibacksliding								
	Winter lbs/d	Daily Max	13.3	7.64 99% Delta Log-Normal	17/18	**13.3**	TOGS 1.3.3								
	% Rem	Minimum	85	99.54 95% Log-Norman	61/0	**85%**	TOGS 1.3.3								
	TBEL: 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). These requirements are summarized in TOGS 1.2.1. 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. Antibacksliding for Summer TSS**.**														
Settleable Solids	mL/L	Daily Max	0.1	<0.1 Actual Average	<0.1	**0.1**	TOGS 1.3.3	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages				-	703.2	-	TBEL
	Consistent with TOGS 1.3.3 the effluent limitation is equal to the TBEL of 0.1 mL/L for POTWs providing secondary treatment and filtration. Given that adequate dilution is available the TBEL is reasonably protective of the WQS.														
Nitrogen, Ammonia (as N) June 1st – Oct. 31st	mg/L	Daily Max	8 As NH_3	6.35 Actual Average	26/0	-	-	0.1 assumed	1.2 As N	1.2 As N	A(C)	**7.4** As N	TOGS 1.1.1	-	TBEL
	The original ammonia of 8 mg/l as NH3 = 6.6 mg/l ammonia as N**.** WQBEL is less restrictive at; (ambient conc. of 1.2-0.1 background) x dilution (6.7) = 7.4 mg/l as N This assumed a DO minimum concentration of 7 mg/l for the DO sag. It further assumes that dilution that includes the upstream permitted discharge into Black Creek for the toxicity dilutions assessment using the TOGS 1.1.1 from a summer pH of 7.5 and a temperature of 25C. 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). These requirements are summarized in TOGS 1.2.1. 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.														

Outfall #	001 (Existing)	**Description of Wastewater:** Residential Wastewater													
		Type of Treatment: Community septic system, dosing tank, distribution boxes, buried sand filters, and cascade aeration													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[5]	# 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		
Nitrogen, Ammonia (as N) Nov. 1st – May 31st	mg/L	Daily Max	15 As NH_3	5.53 Actual Average	35/0	-	-	0.1 assumed	1.4 As N	1.8 As N	A(C)	**11.4** As N	TOGS 1.1.1	-	WQBEL
	The WQS for Ammonia was determined from TOGS 1.1.1 from a winter pH of 7.5 and a temperature of 10C. The WQBEL of 1.8-.01 x 6.7 = 11.4 mg/l as N This 11.4 ammonia as N limit models as causing an acceptable minimum stream DO.														
Mercury	ng/L	-	-	-	-	-	-	-	-	0.7	H(FC)	0.7	-	-	MDV
	To minimize the potential for a discharge of mercury, a Mercury Minimization Program for Low Priority POTWs was added to the permit.														
Coliform, Fecal	#/100 ml	30d Geo Mean	200	-	-	**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	-	-	**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.														
Calcium	ug/L	One Sample	N/A	98,600 Value from NY-2A	1	-	-	-	-	-	-	-	-	-	No Limitation
Copper	ug/L	One Sample	N/A	16 Value From NY-2A	1	-	-	-	5.2	15.3	A(A)	47.5	TOG 1.1.1	-	No Limitation
	Using a file value in the area of H = 115 and stream default pH of 7.5 the limiting ambient copper criteria would be based on the acute value of 15.3 ug/l x 3.1 (acute dilution) = 47.5 ug/l. The NY—2C indicates no reasonable potential to exceed this value, so a zinc limit is not needed. (Upstream discharge of 002 is not considered in this calculation as it is in UOD dilutions since this is a conservative pollutant – hence the dilution of 3.1:1)														
Total Hardness	ug/L	One Sample	N/A	318,000 Value from NY-2A	1	-	-	-	-	-	-	-	-	-	No Limitation
Zinc	ug/L	One Sample	N/A	11.2 Value from NY-2A	1	-	-	-	43	132	A(A)	409	TOG 1.1.1	-	No Limitation
	Using a file value in the area of H = 115 and stream default pH of 7.5 the limiting ambient zinc criteria would be based on the acute value of 132 ug/l x 3.1 (acute dilution) =409 ug/l. The NY—2C indicates no reasonable potential to exceed this value, so a zinc limit is not needed. (Upstream discharge of 002 is not considered in this calculation as it is in UOD dilutions since this is a conservative pollutant – hence the dilution of 3.1:1)														

Outfall #	001 (Existing)	**Description of Wastewater:** Residential Wastewater													
		Type of Treatment: Community septic system, dosing tank, distribution boxes, buried sand filters, and cascade aeration													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[5]	# 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		
Specific Conductance	Umhos/cm	One Sample	N/A	1210 Value from NY-2A	1	-	-	-	-	-	-	-	-	-	No Limitation
Total Dissolved Solids	mg/L	One Sample	N/A	704 Value from NY-2A	1	-	-	-	132	500	Standard	500	703.3	-	No Limitation
	At 7Q10 flow the dilution is 5:3:1 and the impact of the NY-2C value would be 700/5.3 = 132 mg/l. If this is a representative sample it may be assumed that this effluent has limited reasonable potential to exceed the stream standard of 500 mg/l, and no limit is required.														
Phosphorus	mg/L	One Sample	N/A	5 Value from NY-2A	1	-	-	-	-	-	Narrative	-	703.2	-	-
	There is no ambient concentration specified for class C water beyond the narrative defining an impairment, and since the Phosphorus TMDL for Black Creek has not been finalized and approved by EPA there is no TMDL WLA for Phosphorus from this discharge presently. Should the TMDL be finalized and approved a WLA may be imposed at that time														
Total Residual Chlorine	mg/L	Daily Max	-	-	-	2.0	TOGS 1.3.3	-	0.0057	0.005	A(C)	0.0028	TOGS 1.1.1	**0.03**	ML
	Seasonal effluent disinfection is being added to the permit. Due to the low dilution, the calculated WQBEL 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														

Outfall 002 (Existing)

Outfall #	002 (Existing)	**Description of Wastewater:** Residential Wastewater														
		Type of Treatment: Community septic system, dosing tank, distribution boxes, buried sand filters, and cascade aeration														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[6]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
General Notes: Existing discharge data from 8/2014 to 8/2019 was obtained from Discharge Monitoring Reports provided on EPA ICIS.															
Flow Rate	MGD	Monthly Avg	0.025	0.02 Actual Avg.	61/0	**0.025**	Design Flow	Narrative: No alterations that will impair the waters for their best usages.					703.2	-	TBEL
	Consistent with TOGS 1.3.3, a monthly average flow limitation equal to the average daily design capacity of the treatment plant is specified.														
pH	SU	Minimum	6.5	7.07 Actual Avg.	61/0	6.0	TOGS 1.3.3	-	6.5 – 8.5	6.5 – 8.5	Range	6.5 - 8.5	703.3	-	WQBEL
		Maximum	8.5	7.33 Actual Avg.	61/0	9.0									
	The WQBEL based on Class C stream standards														
Temperature	°C	Daily Max	Monitor	15.1 Actual Average	61/0	-	-	Narrative (Non-Trout): The water temperature at the surface of a stream shall not be raised to more than 90F at any point and... shall not be raised or lowered to more than 5F over the temperature that existed before the addition					704.2	-	Monitor
	Monitoring is required for process control and informational purposes.														
Dissolved Oxygen (DO)	mg/L	Daily Min	-	-	-	-	-	-	S/W= 4.04/5.74 Critical Point	(Non-Trout) 4.0 mg/L	Narrative	X	703.3	-	No Limitation
	The downstream DO concentration was modeled using the Streeter-Phelps equations in a model using the following assumptions: 'f factor of 2' from WQMP Summer Effluent DO = 0 mg/l, assumed stream temp of 25 C in summer, and CBOD5 = 15 and NOD=48.3 mg/l Winter Effluent DO = 0, stream temp = 10C, and CBOD5 = 25 mg/l and NOD = 89.9 mg/l														
5-day Carbonaceous	Summer mg/L	Daily Max	15	2.29 Actual Average	7/19	15	Antibacksliding	-	*Previous Permit UOD parameters assessed to verify that the minimum*			15	703.3 DO	-	TBEL

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

Outfall #	002 (Existing)	**Description of Wastewater:** Residential Wastewater **Type of Treatment:** Community septic system, dosing tank, distribution boxes, buried sand filters, and cascade aeration													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[6]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Biochemical Oxygen Demand ($CBOD_5$)	Winter mg/l	Daily Max	25	3.0 Actual Average	13/22	25	TOGS 1.3.3		*standards for Dissolved Oxygen of 4.0 mg/l minimum are maintained if **antibacksliding values** are selected as permit limits.*			25			
	Summer lbs/d	Daily Max	3.1	0.27 Actual Average	7/19	3.13	Antibacksliding					-			
	Winter lbs/d	Daily Max	5.2	0.57 Actual Average	11/24	5.21	TOGS 1.3.3					-			
	% Rem	Minimum	85	99.56 Actual Average	61/0	85%	TOGS 1.3.3					-			
	Consistent with the existing Permit limits for CBOD, the downstream DO concentration was modeled using the Streeter-Phelps equations in the RSAT model using the following assumptions: The downstream DO concentration was modeled using the Streeter-Phelps equations in a model using the following assumptions: 'f factor' of 2 from WQMP Summer Effluent DO = 0 mg/l, effluent and stream temps of 25 C (fromNY-2A) in summer, and CBOD5 = 15 Winter Effluent DO = 0, Effluent temp = 25C and stream temp = 10, and CBOD5 = 25 mg/l **TBEL =** Antibacksliding for CBOD5.														
Total Suspended Solids (TSS)	Summer mg/L	Daily Max	15	1.87 Actual Average	8/18	15	Antibacksliding	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.			-	703.2	-	TBEL
	Winter mg/l	Daily Max	30	20.73 99% Delta Log-Normal	10/25	30	TOGS 1.3.3								
	Summer lbs/d	Daily Max	3.1	0.14 Actual Average	8/18	3.13	Antibacksliding								
	Winter lbs/d	Daily Max	6.3	2.63 99% Delta Log-Normal	11/24	6.26	TOGS 1.3.3								
	% Rem	Minimum	85	99.54 95% Log-Norman	61/0	85%	TOGS 1.3.3								
	TBEL: 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). These requirements are summarized in TOGS 1.2.1. 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. Antibacksliding for Summer TSS.														
Settleable Solids	mL/L	Daily Max	0.1	<0.1 Actual Average	<0.1	**0.1**	TOGS 1.3.3	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages				-	703.2	-	TBEL

Outfall #	002 (Existing)	**Description of Wastewater:** Residential Wastewater													
		Type of Treatment: Community septic system, dosing tank, distribution boxes, buried sand filters, and cascade aeration													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[6]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
	Consistent with TOGS 1.3.3 the effluent limitation is equal to the TBEL of 0.1 mL/L for POTWs providing secondary treatment and filtration. Given that adequate dilution is available the TBEL is reasonably protective of the WQS.														
Nitrogen, Ammonia (as N) June 1st – Oct. 31st	mg/L	Daily Max	8 As NH_3	5.72 99% Log-Normal	25/1	-	-	0.1	0.9 As N	1.2 As N	8 mg/l NH3 = 6.6 mg/l ammonia as N. This value used for DO assessment.			-	WQBEL
	The original permit limit for ammonia of 8 mg/l as NH3 = 6.6 mg/l ammonia as N. This value was used for the NOD portion of the DO sag curve assessment.														
Nitrogen, Ammonia (as N) Nov. 1st – May 31st	mg/L	Daily Max	15 As NH_3	3.05 Actual Average	35/0	-	-	0.1	1.6 As N	1.8 As N	15 mg/l NH3 = 12.3 mg/l ammonia as N. This value used for DO assessment.			-	WQBEL
	The original permit limit for ammonia of 8 mg/l as NH3 = 12.3 mg/l ammonia as N. This value was used for the NOD portion of the DO sag curve assessment.														
Mercury	ng/L	-	-	-	-	-	-	-	-	0.7	H(FC)	0.7	-	-	MDV
	To minimize the potential for a discharge of mercury, a Mercury Minimization Program for Low Priority POTWs was added to the permit.														
Coliform, Fecal	#/100 ml	30d Geo Mean	200	-	-	**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	-	-	**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.														
Copper (9.3 ug/l) and Zinc (11.0 ug/l) were detected in the lab results for the Application but were not of such quantity to have a reasonable potential for exceeding ambient guidelines.															
Phosphorus	mg/L	One Sample	N/A	2.8 Value from NY-2A	1	-	-	-	-	-	Narrative	-	703.2 or TMDL	-	No limit until TMDL is approved

Outfall #	002 (Existing)	**Description of Wastewater:** Residential Wastewater													
		Type of Treatment: Community septic system, dosing tank, distribution boxes, buried sand filters, and cascade aeration													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[6]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
	There is no ambient concentration specified for class C water beyond the narrative defining an impairment, and since the Phosphorus TMDL for Black Creek has not been finalized and approved by EPA there is no TMDL WLA for Phosphorus from this discharge presently. Should the TMDL be finalized and approved a WLA may be imposed at that time If the Current (now on the DEC Website) Phosphorus TMDL for Black Creek is submitted and approved, the WLA for South Byron (Outfall 002) will be 0.8 lbs/day loading.														
Total Residual Chlorine	mg/L	Daily Max	-	-	-	2.0	TOGS 1.3.3	-	0.005	0.005	A(C)	**0.040**	TOGS 1.1.1	-	WQBEL
	Seasonal effluent disinfection is being added to the permit. The WQBEL was calculated by multiplying the WQS by the chronic dilution ratio. Due to the low dilution, the calculated WQBEL is less than the TBEL and an effluent limitation equal to the WQBEL is appropriate.														

Outfall 001 (Consolidating Outfall 001 & Outfall 002)

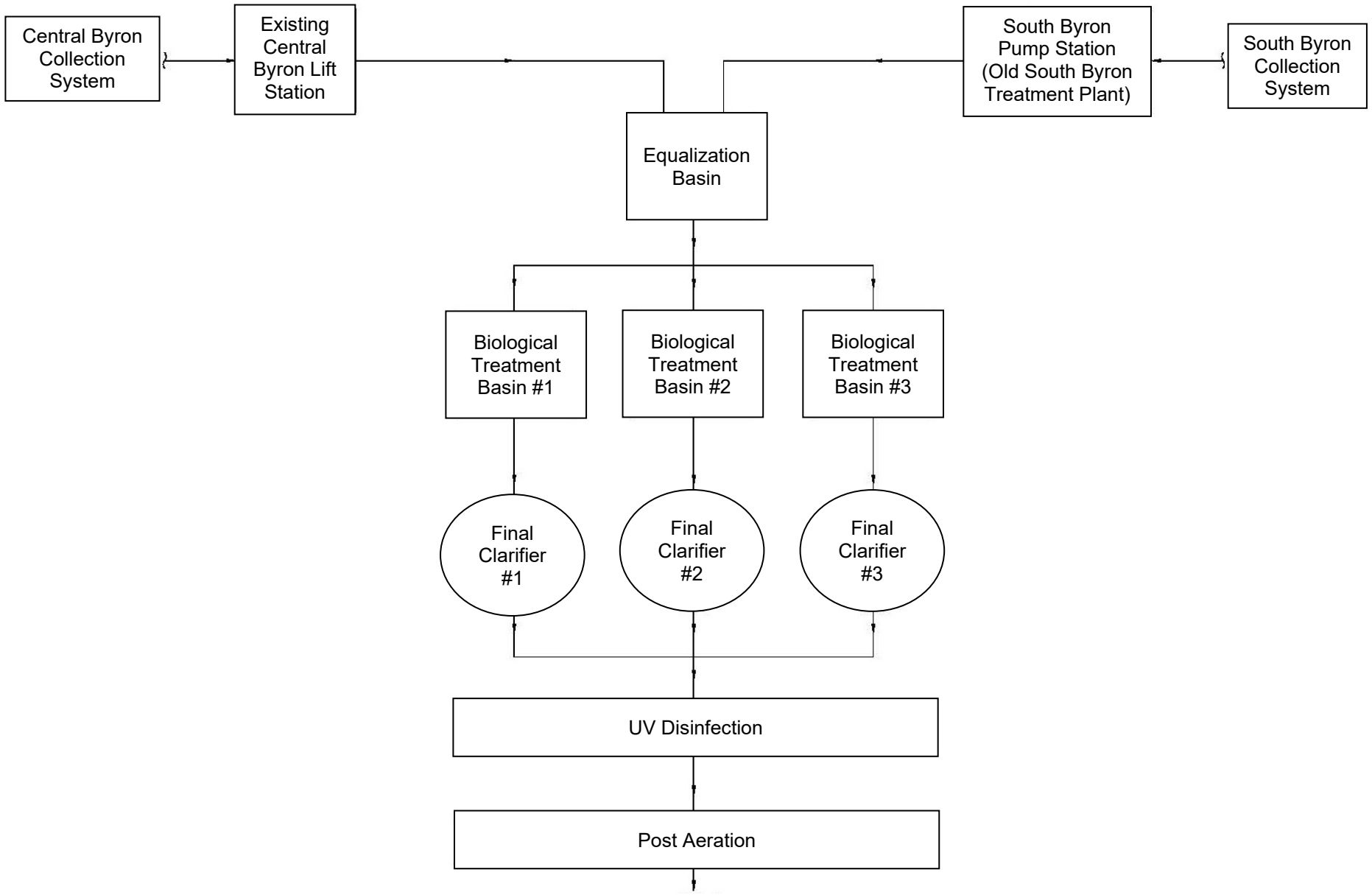
Outfall #	001 (Consolidated)		**Description of Wastewater:** Residential Wastewater													
			Type of Treatment: EQ Basin, Fixed-film Aerobic Treatment System, Secondary Clarifier, UV-Disinfection, Post-Aeration													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[7]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
General Notes: Existing discharge data for **Outfall 001 only** from 1/1/2022 to 3/31/2025 was obtained from Discharge Monitoring Reports provided by the permittee. All applicable water quality standards were reviewed for development of the WQBELs. The standard and WQBEL shown below represent the most stringent.																
Flow Rate	MGD	Monthly Avg	0.053	0.03	39/0	**0.085**	Design Flow	No alterations that will impair the waters for their best usages.					703.2	-	Design Flow
	Consistent with 40 CFR Part 133.102 and TOGS 1.3.3, a monthly average flow limitation equal to the average daily design capacity of the treatment plant has been specified. The consolidated design flow is 0.085 MGD.															
pH	SU	Minimum	**6.5**	6.4 Actual Minimum	39/0	6.0	40 CFR 133.102	8.0[8]	-	6.5 – 8.5	Range	-	703.3	-	TBEL
		Maximum	**8.5**	7.9 Actual Maximum	39/0	9.0									
	Consistent with TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. Given the available dilution, an effluent limitation equal to the TBEL is protective of the WQS. Given the current system performance, the new system shall meet the current pH limits.															
Temperature	°C	Daily Max	**Monitor**	22 Actual Maximum	39/0	Monitor	750-1.13 Monitor	-	The water temperature at the surface of a stream shall not be raised to more than 90F at any point and... shall not be raised or lowered to more than 5F over the temperature that existed before the addition				704.2	-	Monitor
	Consistent with 6 NYCRR 750-1.13(a), monitoring is required and may be used to inform future permitting decisions. This requirement has been continued from the previous permit.															
Dissolved Oxygen (DO)	mg/L	Daily Min	-	-	-	**Monitor**	750-1.13 Monitor	-	-	(Non-Trout) 4.0 mg/L		-	703.3	-	Monitor
	Refer to 5-day Biochemical Oxygen Demand justification for DO. Consistent with 6 NYCRR 750-1.13(a), monitoring is required and may be used to inform future permitting decisions.															

[7] Existing Effluent Quality: Unless otherwise stated, Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)
[8] Ambient pH was established from a 2024 analysis of watershed specific data.

Outfall #	001 (Consolidated)		**Description of Wastewater:** Residential Wastewater												
			Type of Treatment: EQ Basin, Fixed-film Aerobic Treatment System, Secondary Clarifier, UV-Disinfection, Post-Aeration												
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[7]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
5-day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) SUMMER 6/1 – 10/31	mg/L	Daily Max	**15**	7.3	6/0	25/40 30-day/ 7-day	40 CFR 133.102	-	Dissolved Oxygen = 4.0 mg/l Surrogate Standard			-	703.3	-	TBEL
	lbs/d	Daily Max	**6.6**	1.5	6/0	18/28 30-day/ 7-day	-					-			
	% Rem	Minimum	85	98 Actual Minimum	13/0	85	40 CFR 133.102					-			
	The downstream DO concentration was modeled using the Streeter-Phelps equations with the following inputs: Effluent DO = 2.0 mg/l (TOGS 1.3.1 D), Effluent CBOD5 = 25 mg/L, Effluent NOD = 6.5 mg/L (equivalent to 1.4 mg/L-Toxic Ammonia Limit). Model showed that secondary treatment standards are protective of water quality. Ammonia limits based on the toxicity of ammonia are required. Consistent with 40 CFR Part 133.102 and TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. Given the proposed increased in flow and loading to this segment of the stream, and given the current system performance, the facility shall be held to the 15 mg/L $CBOD_5$ limitation year-round.														
5-day Carbonaceous Biochemical Oxygen Demand (CBOD5) WINTER 11/1 – 5/31	mg/L	Daily Max	25	7.2	7/0	25/40 30-day/ 7-day	40 CFR 133.102	-	Dissolved Oxygen = 4.0 mg/l Surrogate Standard			-	703.3	-	**Discontinued**
	lbs/d	Daily Max	11.1	1.48	7/0	18/28 30-day/ 7-day	-					-			
	% Rem	Minimum	85	98 Actual Minimum	13/0	85	40 CFR 133.102					-			
	The downstream DO concentration was modeled using the Streeter-Phelps equation. The model demonstrated that the 15 mg/L $CBOD_5$ limitation is protective of water quality and the current system performance during the winter can meet the 15 mg/L $CBOD_5$ limitation; therefore, the 25 mg/L $CBOD_5$ limit is discontinued.														
Total Suspended Solids (TSS) SUMMER 6/1 – 10/31	Summer mg/L	Daily Max	**15**	5.4	6/0	30/45 30-day/ 7-day	40 CFR 133.102	-	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.				703.2	-	TBEL
	Summer lbs/d	Daily Max	**6.6**	1.13	6/0	21/32 30-day/ 7-day	-								
	% Rem	Minimum	85	98 Actual Minimum	13/0	85	40 CFR 133.102								

Outfall #	001 (Consolidated)		**Description of Wastewater:** Residential Wastewater													
			Type of Treatment: EQ Basin, Fixed-film Aerobic Treatment System, Secondary Clarifier, UV-Disinfection, Post-Aeration													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[7]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
	Consistent with 40 CFR Part 133.102 and 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. Given the proposed increase in flow and loading to this segment of the stream, and the current system performance, the facility shall be held to the 15 mg/L TSS limitations year-round.														
Total Suspended Solids (TSS) WINTER 11/1 – 5/31	Winter mg/L	Daily Max	30	2.68	7/0	30/45 30-day/ 7-day	40 CFR 133.102	-	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.				703.2	-	**Discontinued**
	Winter lbs/d	Daily Max	13.3	0.57	7/0	21/35 30-day/ 7-day	-								
	% Rem	Minimum	85	98 Actual Minimum	13/0	85	40 CFR 133.102								
	Consistent with 40 CFR Part 133.102 and 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. The 15 mg/L TSS limitation is protective of water quality and the current system performance can meet the 15 mg/L TSS limitation in the winter; therefore the 30 mg/L limit is discontinued.														
Settleable Solids	mL/L	Daily Max	**0.1**	<0.1	39/0	0.3	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	-	Antibacksliding
	Consistent with TOGS 1.3.3, the effluent limitation is equal to the TBEL of 0.3 mL/L for POTWs providing secondary treatment without filtration. Given that adequate dilution is available the TBEL is protective of WQS. However, the existing permit limit is less than the calculated WQBEL and is protective of water quality and has been specified.														
Nitrogen, Ammonia (as N) SUMMER 6/1 – 10/31	mg/L	Daily Max	7.4	7 Actual Maximum	6/0	-	-	0.082	-	0.77	A(C)	**1.4**	703.5	-	WQBEL
	The WQS for Ammonia was determined from TOGS 1.1.1 from a pH of 8.0 and a summer temperature of 25 °C. The temperature of the receiving waterbody was an assumed value and consistent with TOGS 1.3.1E. Ambient pH was established from a 2024 analysis of watershed specific data.														
Nitrogen, Ammonia (as N) WINTER 11/1 – 5/31	mg/L	Monthly Avg	11.4	7.3 Actual Maximum	7/0	-	-	0.082	-	1.07	A(C)	**2.1**	703.5	-	WQBEL
	The WQS for Ammonia was determined from TOGS 1.1.1 from a pH of 8.0 and a winter temperature of 10 °C. The temperature of the receiving waterbody was an assumed value and consistent with TOGS 1.3.1E. Ambient pH was established from a 2024 analysis of watershed specific data.														
Coliform, Fecal	#/100 ml	30d Geo Mean	200	-	-	**200**	TOGS 1.3.3	-	The monthly geometric mean, from a minimum of five examinations, shall not exceed 200.				703.4	-	TBEL
		7d Geo Mean	400	-	-	**400**	TOGS 1.3.3	-							

Outfall #	001 (Consolidated)		**Description of Wastewater:** Residential Wastewater													
			Type of Treatment: EQ Basin, Fixed-film Aerobic Treatment System, Secondary Clarifier, UV-Disinfection, Post-Aeration													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[7]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
	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 have been specified.														
Total Residual Chlorine (TRC)	mg/L	Daily Max	**0.03**	-	-	2.0	TOGS 1.3.3	-	-	0.005	A(C)	0.01	703.5	0.03	-
	Effluent disinfection is currently required seasonally and has been continued. Due to the low dilution, the calculated WQBEL 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.														
Total Phosphorus	mg/L	Monthly Avg	-	-	-	**Monitor**	750-1.13 Monitor	-	None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.				703.2	-	TBEL
	Consistent with 6 NYCRR 750-1.13(a), monitoring is required and may be used to inform future permitting decisions. This requirement is new.														


Central Byron Collection System
Existing Central Byron Lift Station
South Byron Pump Station (Old South Byron Treatment Plant)
South Byron Collection System
Equalization Basin
Biological Treatment Basin #1
Biological Treatment Basin #2
Biological Treatment Basin #3
Final Clarifier #1
Final Clarifier #2
Final Clarifier #3
UV Disinfection
Post Aeration
Outfall 001
(Treated Effluent Discharge to Black Creek)

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 waste load allocation (WLA) of an EPA-approved TMDL (6 NYCRR 750-1.11(a)(5)(ii)), if applicable. In accordance with 6 NYCRR 750-1.13(a), permittees discharging to waters which are on the list but do not yet have a TMDL developed may be required to perform additional monitoring for the parameters causing the impairment. Accurate monitoring data is needed

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

Interstate Water Pollution Control Agencies

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

Existing Effluent Quality

The existing effluent quality is determined from a statistical evaluation of effluent data in accordance with TOGS 1.2.1 and the USEPA Office of Water, Technical Support Document for Water Quality-based Toxics Control, March 1991, Appendix E (TSD). The existing effluent quality is equal to the 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, 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 law[9] and USEPA interpretation[10] 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.

[9] American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)
[10] 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)

Antidegradation Policy

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

Effluent Limitations

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

Technology-based Effluent Limitations (TBELs)

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

Water Quality-Based Effluent Limitations (WQBELs)

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

Mixing Zone Analyses

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

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

Critical Flows

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

Reasonable Potential Analysis (RPA)

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

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

2) identify water quality criteria applicable to these pollutants;

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

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

The DEC uses modeling tools to estimate the expected concentrations of the pollutant in the receiving water and develop WQBELs. These tools were developed in part using the methodology 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 DEC uses a model which incorporates the Streeter-Phelps equation. The equation relates the decomposition of inorganic and organic materials along with oxygen reaeration rates to compute the downstream dissolved oxygen concentration for comparison to water quality standards.

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

Minimum Level of Detection

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

Monitoring Requirements

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

Other Conditions

Mercury

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

protection of public health, safety, and welfare. During the effective period of this MDV, any increased risks to human health are mitigated by fish consumption advisories issued periodically by the NYSDOH.

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

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.