



Department of
Environmental
Conservation

State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	4952	NAICS Code:	221320	SPDES Number:	NY0031411
Discharge Class (CL):	07	DEC Number:	4-3656-00007/00001		
Toxic Class (TX):	T	Effective Date (EDP):	EDP		
Major-Sub Drainage Basin:	06-01	Expiration Date (ExDP):	ExDP		
Water Index Number:	SR-204-P 392-5	Item No.:	931-1943	Modification Dates (EDPM):	-
Compact Area:	SRBC				

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

PERMITTEE NAME AND ADDRESS					
Name:	Village of Richfield Springs	Attention:	Mayor		
Street:	PO Box 271				
City:	Richfield Springs	State:	NY	Zip Code:	13439
Email:	clerk@richfieldsprings.org wwtpbutler@richfieldsprings.org		Phone:	315-858-1362	

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL										
Name:	Village of Richfield Springs WWTP									
Address / Location:	140 Bloomfield Drive						County:	Otsego		
City:	Richfield Springs				State:	NY	Zip Code:	13439		
Facility Location:	Latitude:	42 °	50 ' 44 " N	& Longitude:	74 °	59 ' 21 " W				
Primary Outfall No.:	001	Latitude:	42 °	50 ' 44 " N	& Longitude:	74 °	59 ' 25 " W			
Outfall Description:	Treated Sanitary	Receiving Water:	Ocquionis Creek			Class:	C(T)	Standard:	A(T)	

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 (Nancy.myers@efc.ny.gov)
 SRBC
 NYS DOH Dist. Health Office

Permit Administrator:	
Address:	625 Broadway Albany, NY 12233-1750
Signature	Date

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SUMMARY OF ADDITIONAL OUTFALLS

Outfall	Wastewater Description	Outfall Latitude				Outfall Longitude									
Sum	Overflow Retention Facility: ORF effluent + WWTP effluent	42	°	50	'	44	"	N	74	°	59	'	25	"	W
Receiving Water:	Ocquionis Creek									Class:	C(T)				

DRAFT

DEFINITIONS

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

PERMIT LIMITS, LEVELS AND MONITORING: OUTFALL 001

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
001	Year-round	Ocuquionis Creek	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	0.6	MGD			Continuous	Recorder	X	X	1
	Daily Maximum	Monitor	MGD			Continuous	Recorder	X	X	1
pH	Daily Minimum	6.0	SU			1/day	Grab		X	
	Daily Maximum	9.0	SU			1/day	Grab		X	
BOD ₅	Monthly Average	Monitor	mg/L	Monitor	lbs/d	2/month	6-hr. Comp.	X	X	2
	Daily Maximum	5	mg/L	25	lbs/d	2/month	6-hr. Comp.		X	3
Total Suspended Solids (TSS)	Monthly Average	30	mg/L	75	lbs/d	2/month	6-hr. Comp.	X	X	2
	7-Day Average	45	mg/L	110	lbs/d	2/month	6-hr. Comp.		X	
Settleable Solids	Daily Maximum	0.1	mL/L			1/day	Grab		X	
Dissolved Oxygen	Daily Minimum	7.0	mg/L			2/month	Grab		X	
Ammonia (as N) June 1 st – Oct. 31 st	Monthly Average	0.9	mg/L			2/month	6-hr. Comp.		X	3
Ammonia (as N) Nov. 1 st – May 31 st	Monthly Average	1.9	mg/L			2/month	6-hr. Comp.		X	3
Total Kjeldahl Nitrogen (TKN) (as N)	Monthly Average	Monitor	mg/L	Monitor	lbs/d	1/week	6-hr. Comp.	X	X	
Nitrate (NO ₃) (as N)	Monthly Average	17	mg/L	Monitor	lbs/d	1/week	6-hr. Comp.	X	X	3
Nitrite (NO ₂) (as N)	Monthly Average	Monitor	mg/L	Monitor	lbs/d	1/week	6-hr. Comp.	X	X	
	Daily Maximum	0.031	mg/L			1/week	6-hr. Comp.	X	X	3
Nitrite and Nitrate (as N)	Monthly Average	17	mg/L			1/week	6-hr. Comp.	X	X	4,3
Total Nitrogen (as N)	Monthly Average	Monitor	mg/L	Monitor	lb/d	1/week	Calculated	X	X	5
	Monthly Total	-	-	Monitor	lb/mo	1/month	Calculated		X	6
	12 Month Rolling Total	-	-	24,000	lb/yr	1/month	Calculated		X	7
Total Phosphorus (as P)	Monthly Average	0.5	mg/L	Monitor	lb/d	1/week	6-hr. Comp.	X	X	
	Monthly Total	-	-	Monitor	lb/mo	1/month	Calculated		X	6
	12 Month Rolling Total	-	-	913	lb/yr	1/month	Calculated		X	7
Total Mercury	12 MRA	12	ng/L			Semi-annual	Calculated	X	X	8,9
	Daily Maximum	50	ng/L			Semi-annual	Grab	X	X	9
Total Dissolved Solids (TDS)	Daily Maximum	Monitor	mg/L			Quarterly	6-hr. Comp.		X	10

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Sulfite	Daily Maximum	Monitor	mg/L			Quarterly	6-hr. Comp.		X	10
ACTION LEVEL PARAMETERS	Type	Action Level	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Temperature	Daily Maximum	70	°F			1/day	Grab		X	11
EFFLUENT DISINFECTION Required All Year		Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Coliform, Fecal	30-Day Geometric Mean	200	No./100 mL			2/month	Grab		X	
Coliform, Fecal	7-Day Geometric Mean	400	No./100 mL			2/month	Grab		X	
Chlorine, Total Residual	Daily Maximum	0.030	mg/L			1/day	Grab		X	3,12,13
WHOLE EFFLUENT TOXICITY (WET) TESTING		Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
WET - Acute Invertebrate	See footnote			0.3	TUa	Quarterly	See footnote		X	10,14
WET - Acute Vertebrate	See footnote			0.3	TUa	Quarterly	See footnote		X	10,14
WET - Chronic Invertebrate	See footnote			1.5	TUc	Quarterly	See footnote		X	10,14
WET - Chronic Vertebrate	See footnote			1.5	TUc	Quarterly	See footnote		X	10,14

FOOTNOTES:

- Effluent flow monitoring will be required beginning EDP + 6 months.
- Effluent shall not exceed 15% and 15% of influent concentration values for BOD₅ & TSS respectively.
- This is a final effluent limitation. See [Schedule of Compliance](#) for any applicable interim effluent limitations.
- Nitrite and nitrate shall be reported as the sum concentration of both parameters.
- Total Nitrogen (as N) = [Total Kjeldahl Nitrogen (TKN), as N] + [Nitrite (NO₂), as N] + [Nitrate (NO₃), as N].
- The monthly total (lb/mo) is calculated as the monthly average load (lb/d) multiplied by the number of days in the month.
- The 12-month rolling total (lb/yr) is calculated as the current month load added to the month loads from the previous eleven months.
- To calculate the 12 MRA for mercury, add the current monitoring period results to the previous monitoring period's result and divide by 2.
- Semi-annual samples shall be collected in calendar halves (January 1st to June 30th and July 1st to December 31st).

Footnotes continued on next page

10. 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).

11. Temperature Action Level – Monitoring Program

If the discharge temperature exceeds the Action Level of 70°F the permittee shall, within one week, undertake the following sampling program. Temperature shall be measured at the following three locations, all within one hour, on the same day, once in the morning and once in the afternoon:

1. Effluent sample as close as practical to the outfall without interference from the receiving water
2. Downstream receiving water sample (as specified on the Monitoring Locations page of this permit)
3. Upstream receiving water sample (as specified on the Monitoring Locations page of this permit)

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

Results shall be appended to the corresponding Discharge Monitoring Report (DMR) and emailed in spreadsheet format to spdes.temperaturedata@dec.ny.gov.

12. This is a Compliance Level. The calculated WQBEL is 0.0077 mg/L.

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

14. **Whole Effluent Toxicity (WET) Testing:**

Testing Requirements – Chronic WET testing is required, but report both the acute and chronic results. Testing shall be performed in accordance with 40 CFR Part 136 and TOGS 1.3.2 unless prior written approval has been obtained from the Department. The test species shall be *Ceriodaphnia dubia* (water flea - invertebrate) and *Pimephales promelas* (fathead minnow - vertebrate). Receiving water collected upstream from the discharge should be used for dilution. All tests conducted should be static-renewal (two 24-hr composite samples with one renewal for Acute tests and three 24-hr composite samples with two renewals for Chronic tests). The appropriate dilution series should be used to generate a definitive test endpoint, otherwise an immediate rerun of the test may be required. WET testing shall be coordinated with the monitoring of chemical and physical parameters limited by this permit so that the resulting analyses are also representative of the sample used for WET testing. The ratio of critical receiving water flow to discharge flow (i.e., dilution ratio) is 1.3:1 for acute, and 1.5:1 for chronic.

Monitoring Period - WET testing shall be performed quarterly (calendar quarters) during calendar years ending in **3** and **8**.

Reporting - Toxicity Units shall be calculated and reported on the DMR as follows: $TU_a = (100)/(48\text{-hr LC}_{50})$ [note that Acute data is generated by both Acute and Chronic testing] and $TU_c = (100)/(7\text{-day NOEC})$ or $(100)/(7\text{-day IC}_{25})$ when Chronic testing has been performed or $TU_c = (TU_a) \times (10)$ when only Acute testing has been performed and is used to predict Chronic test results, where the 48-hr LC₅₀, 7-day NOEC and/or IC₂₅ are all expressed in % effluent. This must be done, including the Chronic prediction from the Acute data, for both species unless otherwise directed. For Chronic results, report the most sensitive endpoint (i.e., survival, growth and/or reproduction) corresponding to the lowest 7-day NOEC or IC₂₅ and resulting highest TU_c. For Acute results, report a TU_a of 0.3 if there is no statistically significant mortality in 100% effluent as compared to the control. Report a TU_a of 1.0 if there is statistically significant mortality in 100% effluent as compared to the control, but insufficient mortality to generate a 48-hr LC₅₀. Also, in the absence of a 48-hr LC₅₀, use 1.0 TU_a for the Chronic prediction from the Acute data, and report a TU_c of 10.0.

The complete test report including all bench sheets, statistical analyses, reference toxicity data, daily average flow at the time of sampling and other appropriate supporting documentation, shall be submitted within 60 days following the end of each test period with your WET DMR and to the WET@dec.ny.gov email address. A summary page of the test results for the invertebrate and vertebrate species indicating TU_a, 48-hr LC₅₀ for Acute tests and/or TU_c, NOEC, IC₂₅, and most sensitive endpoints for Chronic tests, should also be included at the beginning of the test report.

WET Testing Action Level Exceedances - If an action level is exceeded then the Department may require the permittee to conduct additional WET testing including Acute and/or Chronic tests. Additionally, the permittee may be required to perform a Toxicity Identification/Reduction Evaluation (TI/RE) in accordance with Department guidance. Enforceable WET limits may also apply. The permittee shall be notified in writing by their Regional DEC office of additional requirements. The written notification shall include the reason(s) why such testing, TI/RE and/or limits are required.

PERMIT LIMITS, LEVELS AND MONITORING: ORF

OUTFALL	LIMITATIONS APPLY:	RECEIVING WATER	EFFECTIVE	EXPIRING
Sum (WWTP + ORF) ¹	During ORF Discharges	Occuionis Creek	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Daily Maximum	Monitor	MGD			Continuous	Recorder		X	2
	7-Day Average	Monitor	MGD			Continuous	Recorder		X	2
pH	Daily Minimum	6.0	SU			Daily	Grab		X	3
	Daily Maximum	9.0	SU			Daily	Grab		X	3
BOD ₅	Monthly Average	Monitor	mg/L			Daily	Composite	X	X	4,5
	7-Day Average	45	mg/L			Daily	Composite		X	5,6
Solids, Total Suspended (TSS)	Monthly Average	Monitor	mg/L			Daily	Composite	X	X	4,5
	7-Day Average	45	mg/L			Daily	Composite		X	5,6
Solids, Settleable	Daily Maximum	0.3	mL/L			Daily	Grab		X	3,7
Coliform, Fecal	Daily Maximum	Monitor	No./100 mL			Daily	Grab		X	3,7
Coliform, Fecal	7 Day Geometric Mean	400	No./100 mL			Daily	Grab		X	3,8
Chlorine, Total Residual	Daily Maximum	2.0	mg/L			Daily	Grab		X	3,7

Footnotes

1. The effluent limitations in this table shall only apply when the ORF discharges. The compliance sampling location is the same as Outfall 001 after blending and disinfection.
2. No discharge is permitted except as caused by excess flows above the wet weather capacity of the treatment plant (3.0 MGD) and only after the 4.43 MG capacity for the ORF is exceeded. All flows are diverted to the ORF from the headworks of the wastewater treatment plant (WWTP) and all flows discharged into and from the ORF shall be continuously recorded and totalized. All flows are reported on the monthly operating reports. The ORF contents must be drained back to the WWTP influent as soon as feasible after the event subsides.
3. Grab samples shall be collected a minimum of once every four hours during each event, except bacteria which shall be collected at a rate of one per 8-hour period. Sampling and observation shall begin within 30 minutes of the start of the discharge from the ORF.

Footnotes continued on next page

4. Effluent shall not exceed 15% and 15% of influent concentration values for BOD₅ & TSS respectively. Percent removal shall be calculated by subtracting the measured effluent concentration of the combined discharge from the ORF and the treatment system from the measured WWTP influent concentration and dividing the result by the influent concentration.
5. Representative composite sample shall be a composite of grab samples, one taken every four hours. Sampling shall begin within 30 minutes of the start of the discharge from the ORF.
6. The 7-day average shall be calculated as the average of the results for each of the discharge days over the 7-day period. For example, if the ORF discharges for three days (or any part of a day) during the period, the average of the three days would constitute the 7-day average for the purposes of compliance.
7. Daily maximums shall be calculated based on the arithmetic mean of samples taken during any calendar day.
8. No./100 mL calculated as the geometric mean of the grab samples taken during each day of overflow.

SPECIAL CONDITIONS FOR OPERATION OF OVERFLOW RETENTION FACILITY

- a) The facilities shall be operated in conjunction with the tributary sewer system, pump stations and the WWTP to maximize pollutant removal.
- b) The contents of the ORF (i.e., captured wastewater) shall not be delivered to the WWTP at a rate which would exceed the peak daily or peak hourly flow or loading.
- c) The permittee shall not divert to the retention basin unless either the peak hourly flow or the maximum daily design flow of the treatment process are exceeded. The peak capacity of at the WWTP is 1.5 MGD (daily maximum).
- d) Flow shall not be delivered to the WWTP at a rate that will cause an upset as defined by 6 NYCRR Part 750-2, "Operating in Accordance with a SPDES Permit."
- e) **Wet Weather Operation Plan**
The permittee shall develop and implement an approvable Wet Weather Operation Plan (WWOP). The WWOP shall outline the optimum operational procedures to transition from dry weather operation mode to wet weather operation mode, and back to dry weather operation mode. These procedures shall be used to optimize the treatment of the maximum volume of wet weather flows possible at the treatment plant during wet weather events, while minimizing discharges through the permitted overflow retention facility (ORF) and meeting the effluent limitations in this permit. The WWOP shall be submitted for approval to the NYSDEC Regional Water Engineer and to the Bureau of Water Permits in accordance with the Schedule of Submittals.

MERCURY MINIMIZATION PROGRAM (MMP) - Type II

1. General - The permittee must develop, implement, and maintain a mercury minimization program (MMP), containing the elements set forth below, to reduce mercury effluent levels with the goal of achieving the WQBEL of 0.7 ng/L.
2. MMP Elements - The MMP must be a written document and must include any necessary drawings or maps of the facility and/or collection system. Other related documents already prepared for the facility may be used as part of the MMP and may be incorporated by reference. At a minimum, the MMP must include the following elements as described in detail below:
 - a. Monitoring - Monitoring at Outfall 001, influent and other locations tributary to compliance points shall be performed using either USEPA Method 1631 or another sufficiently sensitive method, as approved under 40 CFR Part 136¹. Monitoring of raw materials, equipment, treatment residuals, and other non-wastewater/non-stormwater substances may be performed using other methods as appropriate. Monitoring must be coordinated so that the results can be effectively compared between locations.

Minimum required monitoring is as follows:

- i. Sewage Treatment Plant Influent and/or Effluent – The permittee must collect samples at the location(s) and frequency as specified in the SPDES permit limitations table.
 - ii. Key Locations and Potential Mercury Sources – The permit includes reduced monitoring requirements and does not require key location sampling. See section 2.a.iv below.
 - iii. Hauled Wastes – The permittee must establish procedures for the acceptance of hauled waste to ensure the hauled waste is not a potential mercury source. Loads which may exceed 500 ng/L,² must receive approval from the Department prior to acceptance.
 - iv. Decreased Monitoring Requirements – The permittee has an EEQ at or below 12 ng/L and the permit includes the following requirements:
 - 1) Reduced requirements
 - a) Conduct influent monitoring, sampling semi-annually, in lieu of monitoring within the collection system, such as at *key locations*; and
 - b) Conduct effluent compliance sampling semi-annually.
 - 2) If a facility with reduced requirements reports discharges above 12 ng/L for two of four consecutive effluent samples, the Department may undertake a Department-initiated modification to remove the allowance of reduced requirements.
 - 3) Under the decreased permit requirements, the facility must continue to conduct a status report, as applicable in accordance with 2.c of this MMP, to determine if any waste streams have changed.
 - v. Additional monitoring must be completed as required elsewhere in this permit (e.g., locations tributary to compliance points).
- b. Control Strategy - The control strategy must contain the following minimum elements:
 - i. Pretreatment/Sewer Use Law - The permittee must review pretreatment program requirements and the Sewer Use Law (SUL) to ensure it is up-to-date and enforceable with applicable permit requirements and will support efforts to achieve a dissolved mercury concentration of 0.70 ng/L in the effluent.
 - ii. Monitoring and Inventory/Inspections for Outfall 001 -
 - 1) Monitoring shall be performed as described in 2.a above. As mercury sources are found, the permittee must enforce its sewer use law to track down and minimize these sources.

¹ Outfall monitoring must be conducted using the methods specified in Table 8 of *DOW 1.3.10*.

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

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

- 2) The permittee must inventory and/or inspect users of its system as necessary to support the MMP.
 - a) Dental Facilities
 1. The permittee must maintain an inventory of each dental facility.
 2. The permittee must inspect each dental facility at least once every five years to verify compliance with the wastewater treatment operation, maintenance, and notification elements of 6 NYCRR 374.4. Alternatively, the permittee may develop and implement an outreach program,³ which informs users of their responsibilities, and collect the “Amalgam Waste Compliance Report for Dental Dischargers”⁴ form, as needed, to satisfy the inspection requirements. The permittee must conduct the outreach program at least once every five years and ensure the “Amalgam Waste Compliance Report for Dental Dischargers” are submitted by new users, as necessary. The outreach program could be supported by a subset of site inspections.
 3. A file shall be maintained containing documentation demonstrating compliance with 2.b.ii.2)a) above. This file shall be available for review by the Department representatives and copies shall be provided upon request.
 - b) Other *potential mercury sources*
 1. The permittee must maintain an inventory of other *potential mercury sources*.
 2. The permittee must inspect other *potential mercury sources* once every five years. Alternatively, the permittee may develop and implement an outreach program which informs users of their responsibilities as *potential mercury sources*. The permittee must conduct the outreach program at least once every five years. The outreach program should be supported by a subset of site inspections.
 3. A file shall be maintained containing documentation demonstrating compliance with 2.b.ii.2)b) above. This file shall be available for review by the Department representatives and copies shall be provided upon request.
- iii. Systems with CSO & Type II SSO Outfalls – Permittees must prioritize *potential mercury sources* upstream of CSOs and Type II SSOs (overflow retention facilities (ORFs)) for mercury reduction activities and/or controlled-release discharge.
- iv. 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.
- v. 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.

³ For example, the outreach program could include education about sources of mercury and what to do if a mercury source is found.

⁴ The form, “Amalgam Waste Compliance Report for Dental Dischargers,” can be found here:
https://www.dec.ny.gov/docs/water_pdf/dentalform.pdf

MERCURY MINIMIZATION PROGRAM (MMP) - Type II (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. All MMP monitoring results for the previous reporting period;
 - ii. A list of known and *potential mercury sources*
 - 1) If the permittee meets the criteria for MMP Type IV, the permittee must notify the Department for a permittee-initiated modification;
 - iii. All actions undertaken, pursuant to the control strategy, during the previous reporting period;
 - iv. Actions planned, pursuant to the control strategy, for the upcoming reporting period; and
 - v. Progress towards achieving a dissolved mercury concentration of 0.70 ng/L in the effluent (e.g., summarizing reductions in effluent concentrations as a result of the control strategy implementation and/or installation/modification of a treatment system).

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

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

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

DEFINITIONS:

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

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

DISCHARGE NOTIFICATION REQUIREMENTS

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

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

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

- (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.

CAPACITY, MANAGEMENT, OPERATION AND MAINTENANCE PLAN

1. **General Standards:** The permittee shall develop, maintain and implement a Capacity, Management, Operation and Maintenance (CMOM) program. The program should be effective at reducing wet weather flows to ensure the protection of public health, receiving waters and the environment during wet weather period from a separate sanitary sewer system serving public owned treatment works (POTW). The primary performance measure for the CMOM program is reduction in peak wet weather flows in the system.
2. **Compliance Due Date:** In accordance with the Schedule of Additional Submittals, the permittee shall submit an approvable CMOM Program, including an implementation schedule, to the Regional Water Engineer for review and approval. The permittee shall begin implementation of the approved CMOM program within 3 months of Departmental approval. The permittee shall review, update and modify the CMOM plan annually and submit an annual report describing all actions taken in the preceding year. The submitted CMOM Program, once approved, shall supersede the requirements listed in this section for purposes of compliance with this Permit.
3. **Components of CMOM program:** The following components, at a minimum, shall be addressed in the development of the CMOM program. Note that while these components shall be addressed by the permittee, the permittee may address these and any additional items using organizational and implementation methods applicable to and tailored to their specific system:

Goals

Organization

Legal Authority

Measures and activities

Design and Inspection Standards

Overflow Emergency Response Plan

System Evaluation and Capacity Assurance Plan

Monitoring and evaluation the effectiveness of the CMOM program

The permittee may include measures undertaken and completed as part of other ongoing programs, as well as Asset Management planning and principles, to satisfy any applicable CMOM program requirements. The permittee may also indicate "not applicable" for any portions of the CMOM Program that do not apply to its facility or collection system based upon its knowledge of the system. Guidance for developing and evaluating CMOM programs can be found at: <https://www.epa.gov/npdes/sanitary-sewer-overflow-ss0-additional-resources>.

4. **Compliance with CMOM Requirements:** As stated in (2) above, compliance with the submitted and approved CMOM Program shall constitute compliance with the CMOM requirements in this permit. Any future CMOM requirements promulgated by either the Department or USEPA will not go into effect for this facility, and the facility shall not be required to comply with these additional requirements, until such time as the facility's permit and approved CMOM Program are modified to include the future CMOM requirements. As part of that modification, a schedule of compliance will be included to allow adequate time for the permittee to update its approved CMOM Program to address the future CMOM requirements.

SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

Outfall	Compliance Action	Compliance Date ⁵
001	<p><u>UPDATED PRELIMINARY ENGINEERING REPORT</u> The permittee shall submit an approvable⁶ Preliminary Engineering Report (PER) that meets the requirements of the EFC/DEC Engineering Report Outline (https://www.dec.ny.gov/permits/6054.html). The report shall describe treatment alternatives or other control mechanisms that may be used to comply with the final effluent limitations for BOD₅, ammonia, nitrate, nitrite, nitrate and nitrate, total residual chlorine.</p>	EDP + 6 Months
	<p><u>ORF FLOW METERS</u> The permittee shall install flow metering equipment that can continuously record and totalize all flows that are diverted to the ORF from the headworks of the WWTP and all flows discharged into and from the ORF.</p>	EDP + 6 months
	<p><u>EFFLUENT FLOW METER</u> The permittee shall install an effluent flow meter to measure combined effluent flow during ORF discharges.</p>	EDP + 6 months
	<p><u>INTERIM PROGRESS REPORT</u> The permittee shall provide a status update for the <i>Design Documents</i>.</p>	EDP + 15 Months
	<p><u>DESIGN DOCUMENTS</u> The permittee shall submit approvable⁶ 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 limitations for BOD₅, ammonia, nitrate, nitrite, nitrate and nitrate, total residual chlorine.</p>	EDP + 18 Months
	<p><u>INTERIM PROGRESS REPORT</u> The permittee shall provide a status update for <i>Complete Construction</i>.</p>	EDP + 27 Months EDP + 36 Months EDP + 45 Months
	<p><u>COMPLETE CONSTRUCTION</u> The permittee shall provide a Certificate of Completion⁷ to the Department that the treatment system has been fully completed in accordance with the approved Design Documents.</p>	EDP + 54 Months
<p><u>COMMENCE OPERATION</u> Following receipt of Department acceptance of Certificate of Completion, the permittee shall comply with the final effluent limitation(s) described in this permit for BOD₅, ammonia, nitrate, nitrite, nitrate and nitrate, total residual chlorine.</p>	Upon Department Acceptance	
Unless noted otherwise, the above actions are one-time requirements.		

⁵ 6 NYCRR 750-1.14 (a)

⁶ 6 NYCRR 750 1.2 (a)(8)

⁷ 6 NYCRR 750-2.10 (c)

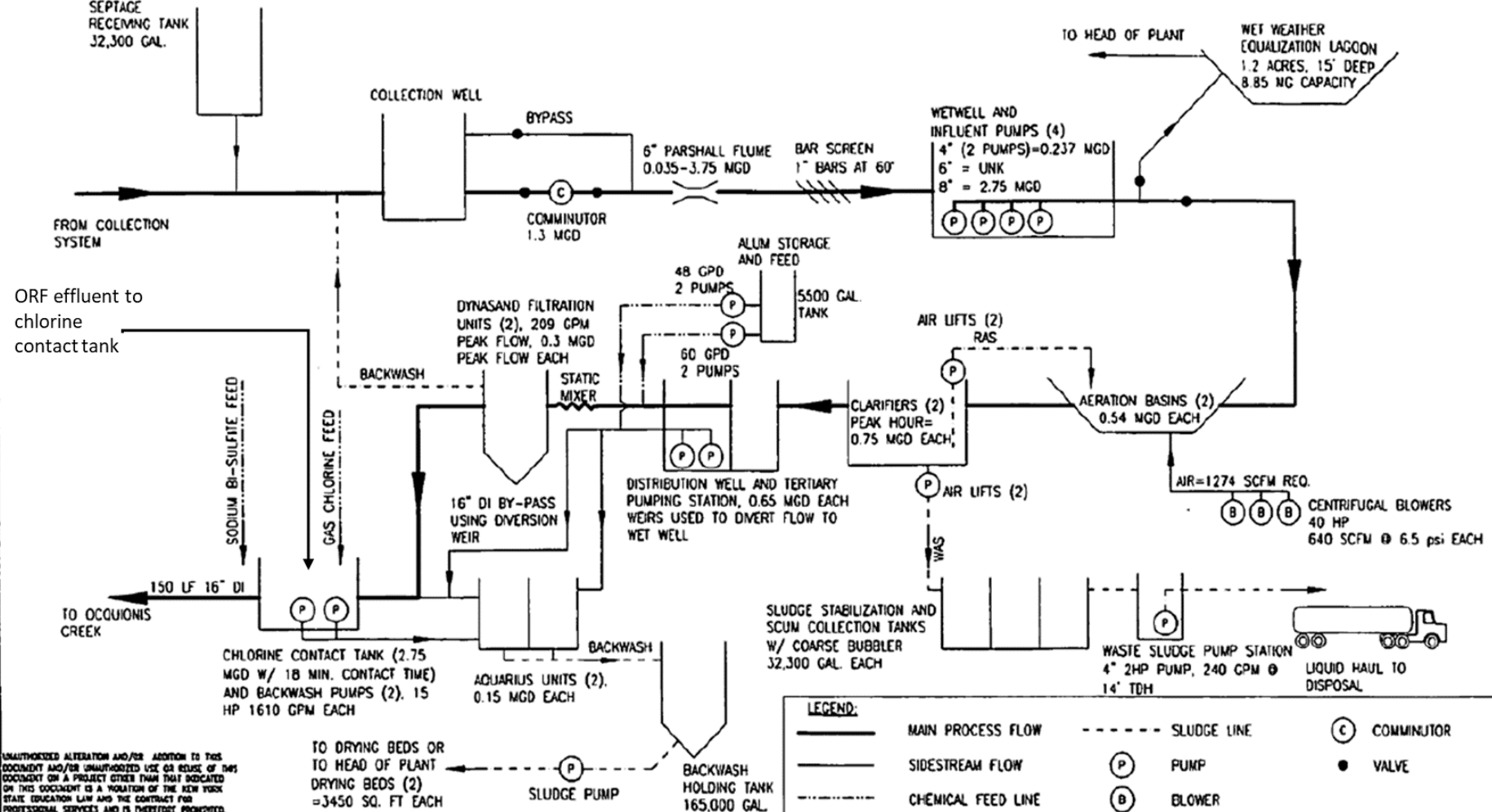
SCHEDULE OF COMPLIANCE (CONTINUED)

OUTFALL	PARAMETER	INTERIM EFFLUENT LIMIT					MONITORING REQUIREMENTS				Notes
		Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.		
001	BOD ₅	Monthly Average	10	mg/L			2/month	6-hr. Comp.		X	1
	Ammonia (as N) June 1 st – Oct. 31 st	Daily Maximum	2.2	mg/L			2/month	6-hr. Comp.	X	X	1
	Ammonia Nov. 1 st – May 31 st	Daily Maximum	7.0	mg/L			2/month	6-hr. Comp.	X	X	1
	Nitrate (NO ₃) (as N)	Monthly Average	Monitor	mg/L			1/week	6-hr. Comp.	X	X	1
	Nitrite (NO ₂) (as N)	Daily Maximum	Monitor	mg/L			1/week	6-hr. Comp.	X	X	1
	Nitrite and Nitrate	Monthly Average	Monitor	mg/L			1/week	6-hr. Comp.	X	X	1,2
	Chlorine, Total Residual	Daily Maximum	0.10	mg/L			1/day	Grab		X	1,3
Notes:	<ol style="list-style-type: none"> Interim limits expire ExDP. Nitrite and nitrate shall be reported as the sum concentration of both parameters. Sampling and reporting for total residual chlorine are only necessary if chlorine is used for disinfection, elsewhere in the treatment process, or the facility otherwise has reasonable potential to discharge chlorine. Otherwise, the permittee shall report NODI-9 on the DMR. 										

- 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 lapsed 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:
- A short description of the non-compliance;
 - A description of any actions taken or proposed by the permittee to comply with the lapsed schedule requirements without further delay and to limit environmental impact associated with the non-compliance;
 - Any details which tend to explain or mitigate an instance of non-compliance; and
 - An estimate of the date the permittee will comply with the lapsed schedule requirement and an assessment of the probability that the permittee will meet the next scheduled requirement on time.
- c) The permittee shall submit copies of any document required by the above schedule of compliance to the NYSDEC Regional Water Engineer and to the Bureau of Water Permits.

MONITORING LOCATIONS

The permittee shall take samples and measurements to comply with the monitoring requirements specified in this permit at the location(s) specified below:
 Influent: in the influent channel prior to the Parshall flume
 Outfall 001 Effluent: after the chlorine contact tank
 Combined (WWTP + ORF): same location as Outfall 001 after blending prior to disinfection



UNAUTHORIZED ALTERATION AND/OR ADDITION TO THIS DOCUMENT AND/OR UNAUTHORIZED USE OR REUSE OF THIS DOCUMENT ON A PROJECT OTHER THAN THAT INDICATED ON THIS DOCUMENT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE CONTRACT FOR PROFESSIONAL SERVICES AND IS THEREFORE PROHIBITED.

LEGEND:			
	MAIN PROCESS FLOW		SLUDGE LINE
	SIDESTREAM FLOW		PUMP
	CHEMICAL FEED LINE		BLOWER
	COMMINUTOR		VALVE

SCALE	N.T.S.
DRAWN	TJS
DATE	2/27/09
DESIGNED	MDH

VILLAGE OF RICHFIELD SPRINGS
WASTEWATER TREATMENT FACILITY
SCHEMATIC

Lamont Engineers
ENGINEERS - PLANNERS - FACILITY OPERATIONS
149 MAIN ST., COLTSVILLE, N.Y. 12522 (518) 224-0221

PROJECT NO.	FILE NAME	SHEET NO.
2007097	SCHEMATIC	2007097.SCH

ISSUE	REV.	LOCATION	DATE	AP'D	REMARKS

THERMAL MONITORING LOCATIONS

The upstream monitoring location is approximately 10 ft upstream of the outfall at 42°50'44", -74°59'25".

The downstream monitoring location is at 42°50'43", -74°59'26".

The horizontal and vertical location should be located at a sufficient point in which the impacts of the effluent are appropriately characterized.

Generally, the sample location should be on located on the same side of the river the outfall is located, horizontally located about midpoint between the shoreline and centerline of the stream, vertically the sample should be collected from the top half of the water column.



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

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

GENERAL REQUIREMENTS (continued)

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.

H. SPDES Permit Program Fee

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

I. Water Treatment Chemicals (WTCs)

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

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

RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

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

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

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

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

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

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

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

- 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 Department's website. In addition, POTWs are required to provide a five-day incident report and supplemental information to the DEC in accordance with Part 750-2.7(d) by utilizing the Division of Water Report of Noncompliance Event form unless waived by DEC on a case-by-case basis.

- E. Schedule of Additional Submittals:

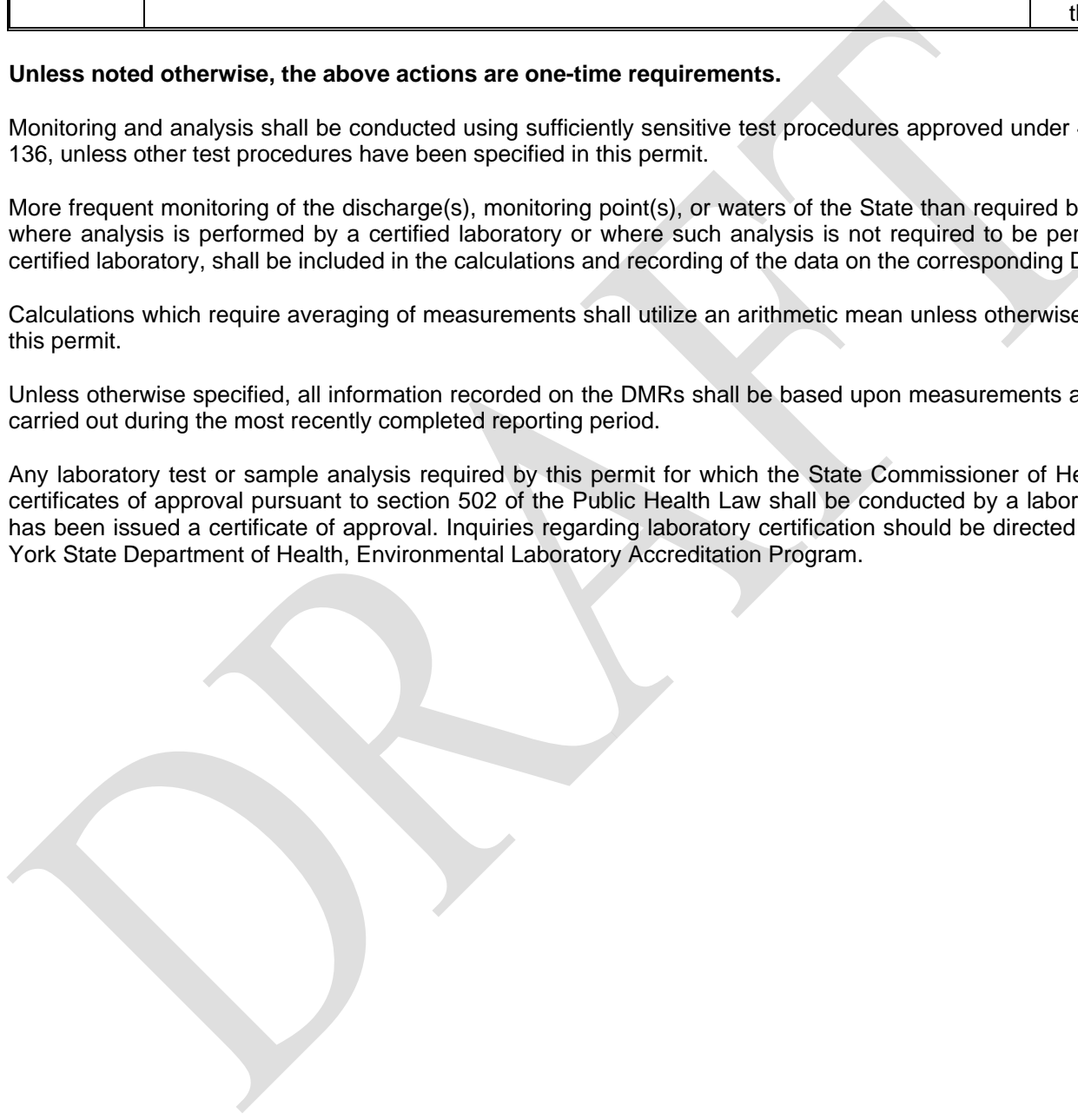
The permittee shall submit the following information to the Regional Water Engineer and to the Bureau of Water Permits, unless otherwise instructed:

SCHEDULE OF ADDITIONAL SUBMITTALS		
Outfall(s)	Required Action	Due Date
001	<p><u>EMERGING CONTAMINANT SHORT-TERM MONITORING PROGRAM</u> 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 Department during this time that sampling can be discontinued. Samples must be analyzed utilizing EPA draft analytical 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 Department indicates otherwise. The results shall be reported through the "Emerging Contaminants Survey for POTWs" found at: https://www.dec.ny.gov/chemical/127939.html.</p> <p>The permittee shall initiate track down of potential sources by completing the "Emerging Contaminants Investigation Checklist for POTWs" available at the above link.</p> <p>The Department may periodically request updates and/or additional monitoring to check progress on track down investigations. Elements of the checklist may be used as permit conditions in future permit modifications.</p>	<p>EDP + 14 months</p> <p>Within 90 days of DEC written notification</p>
001	<p><u>WATER TREATMENT CHEMICAL (WTC) ANNUAL REPORT FORM</u> The permittee shall submit a completed WTC Annual Report Form each year that Water Treatment Chemicals are used. The form shall be attached to the December DMR.</p>	<p>December DMR (February 28th)</p>
001	<p><u>ANNUAL FLOW CERTIFICATION</u> The permittee shall submit an Annual Flow Certification form each year in accordance with 750-2.9(C)(4). The form shall be attached to the February DMR or submitted through nForm.</p>	<p>February DMR (March 28th)</p>
001	<p><u>WHOLE EFFLUENT TOXICITY (WET) TESTING</u> WET testing shall be performed as required in the footnote of the permit limits table. The toxicity test report including all information requested of this permit shall be attached to your WET DMRs and sent to the WET@dec.ny.gov email address.</p>	<p>Within 60 days following the end of each monitoring period</p>
001	<p><u>WET WEATHER OPERATIONS PLAN (WWOP)</u> The permittee shall submit an updated Wet Weather Operation Plan (WWOP). The WWOP shall outline the optimum operational procedures to transition from dry weather operation mode to wet weather operation mode, and back to dry weather operation mode. These procedures shall be used to optimize the treatment of the maximum volume of wet weather flows possible at the treatment plant during wet weather events, while minimizing discharges through the permitted overflow retention facility (ORF) and meeting the effluent limitations in this permit.</p>	<p>EDP + 48 months</p>
001	<p><u>CAPACITY, MANAGEMENT, OPERATION & MAINTENANCE PROGRAM (CMOM) PLAN</u> The permittee shall develop and submit an updated CMOM plan. The plan shall follow the guidelines contained in this permit.</p>	<p>EDP + 24 months</p>
001	<p><u>CMOM ANNUAL REPORT</u> The permittee shall submit an annual report describing all actions taken in the preceding year.</p>	<p>EDP + 36 months, annually thereafter</p>

SCHEDULE OF ADDITIONAL SUBMITTALS		
Outfall(s)	Required Action	Due Date
001	<u>MERCURY MINIMIZATION PLAN</u> The permittee must complete and maintain onsite an annual mercury minimization status report in accordance with the requirements of this permit.	<i>Maintained Onsite</i> EDP + 12 months, annually thereafter

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

- F. Monitoring and analysis shall be conducted using sufficiently sensitive test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
- G. More frequent monitoring of the discharge(s), monitoring point(s), or waters of the State than required by the permit, where analysis is performed by a certified laboratory or where such analysis is not required to be performed by a certified laboratory, shall be included in the calculations and recording of the data on the corresponding DMRs.
- H. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- 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 Village of Richfield Springs Richfield Springs Wastewater Treatment Plant NY0031411



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Summary of Permit Changes

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

Updated

- Permit format, definitions, and general conditions
- Outfall coordinates
- The stream classification from C to C(T)
- TRC limit from 0.10 to 0.030 mg/L
- Chronic WET action levels from 4.0 to 1.5 TU_c
- WET requirements to years ended in 3 and 8
- Ammonia limitations from daily maximums of 7.0 and 2.2 mg/L to monthly averages of 0.9 and 1.9 mg/L for summer and winter, respectively
- Settleable solids limit from 0.3 to 0.1 mL/L
- BOD₅ from a monthly average of 10 mg/L and 7-day average monitoring to a 5.0 mg/L daily maximum limitation and a monthly average monitoring requirement
- Overflow Retention Facility (ORF) limitations and requirements
 - Updated percent removal for BOD₅ and TSS
 - Updated BOD₅ and TSS monitoring requirements from daily maximum to monthly average
 - Removed dissolved oxygen, ammonia, floatable materials, and precipitation monitoring requirements
- Disinfection season to year-round
- Permit language pertaining to the ORF, including the Permit Limits, Levels and Monitoring Table, Special Conditions for Operation of Overflow Retention Facility, and the Capacity, Management, Operation and Maintenance (CMOM) program requirements to align with current Department requirements
- Process flow diagram

Added

- Phosphorus concentration limit of 0.5 mg/L to comply with Chesapeake Bay Total Maximum Daily Load (TMDL) Watershed Improvement Plan III (WIP III) requirements
- A temperature action level of 70 °F and temperature monitoring program
- Nitrate, nitrite, and nitrite and nitrate limitations
- Mercury Minimization Program Type II
- Mercury daily maximum limit of 50 ng/L and a 12-month rolling average limit of 12 ng/L
- Sulfite monitoring
- Emerging Contaminant Short-Term Monitoring Program
- Total Dissolved Solids (TDS) monitoring

Removed

- Previous format of Chesapeake Bay TMDL Implementation tables including the tables related to the aggregate limits
- Monthly average concentration monitoring for total residual chlorine and settleable solids
- Temperature monthly average monitoring and influent monitoring
- Influent monitoring for pH, settleable solids, and ammonia

Permittee: Village of Richfield Springs
Facility: Richfield Springs Wastewater Treatment Plant
SPDES Number: NY0031411
USEPA Non-Major/Class 07 Municipal

Date: December 15, 2023 v.1.17
Permit Writer: Catherine Winters
Water Quality Reviewer: Catherine Winters
Full Technical Review

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

12/1/2009 The last full technical review was performed in accordance with the Environmental Benefit Permit Strategy (EBPS). This permit, along with all subsequent modifications, if any are listed below, has formed the basis of this permit.

9/1/2014 The permit was modified and renewed pursuant with an effective date of September 1, 2014, and an expiration date of August 31, 2019. The permit was modified to correct errors for the Overflow Retention Facility (ORF) effluent limits and include new nutrient effluent limits in accordance with the Chesapeake Bay Total Maximum Daily Load (TMDL) Watershed Improvement Plan II (WIP II).

The permit was administratively renewed in 2020. The current permit administrative renewal is effective until 8/31/2025.

7/16/2020 The Department issued a Request for Information (RFI) to modify and renew the SPDES permit, pursuant to 6 NYCRR Part 750-1.18 and NYS Environmental Benefit Permit Strategy (EBPS) to comply with new requirements outlined in the Chesapeake Bay TMDL WIP III. At the time of the RFI, the facility had an EBPS score of 239 and ranking of 83.

9/1/2020 The permit was administratively renewed, with an effective date of September 1, 2020, and an expiration date of August 31, 2025.

10/22/2020 The Village of Richfield Springs submitted an NY-2A 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 waste. The collection system consists of separate sewers. The facility does not have any significant industrial users (SIUs).

The current 0.6 MGD treatment plant consists of:

- Preliminary Treatment: screening and grit removal
- Secondary Treatment: activated sludge (extended aeration) and rectangular traveling bridge clarifier
- Tertiary Treatment: two continuous backwash filters
- Disinfection: chlorination and dechlorination

The facility accepts wastewater from the following municipalities:

Municipality	POSS # or SPDES #	Collection System
Village of Richfield Springs	NY0031411	Separate

Wastewater from the Village of Richfield Springs enters the plant through two lines, one from the east, and one from the west. The lines meet in an influent trough. Septage can be received here but is typically received in the rear of the Clarifier Building, into a dedicated septage receiving tank. It is aerated and digested using existing bacteria and thickened. Supernatant is pumped to the head of the plant and the digested solids are pumped to the reed beds.

The wastewater flow enters the headworks building, passing through an automated bar screen. A Parshall flume and ultrasonic sensor measure the flow. During high flows, flow may also enter the bypass channel, which has a bar screen that must be manually raked. The aeration basins are earthen with HDPE liners and operate in extended aeration mode.

Wastewater leaves the aeration basins and flows to two rectangular clarifiers, where solids settle and clarified water flows over the v-notch weirs to the Tertiary Treatment and Control Building for coagulation, phosphorus removal, and filtration.

The plant uses aluminum sulfate, "alum", as a coagulant to react with dissolved phosphorus as well as any residual particulate matter to form a floc. Alum is injected near the base of the two Dynasand upflow, continuous backwash sand filters. An in-line static mixer provides a swirling action to the flow, ensuring complete mixing of the coagulant with the wastewater. The alum reacts swiftly, and the flow enters the base of the Dynasand upflow sand filters. The sand filters have a continuous air scour backwashing action, to remove the particulate matter that is captured in the filter. This backwash water is segregated in a separate center compartment and is returned to the head of the plant. The filtered water then flows to the chlorine contact tank for seasonal disinfection with sodium hypochlorite. Immediately prior to the flow leaving the tank, sodium bisulfite is added for chlorine removal.

The wasted sludge is aerated and further broken down by the bacteria in the digester tank. Supernatant liquid which rises to the surface as the sludge thickens and settles is pumped to the head of the plant. Sludge remains in the digester under aeration for approximately 4 or 5 days before being pumped with a portable pump to the reed beds located behind the Clarifier Building. There are three reed beds, each 60 ft by 60 ft. The beds have a thick HDPE liner and are covered with rounded stone. The phragmites reeds grow in the sludge, utilizing the nutrients and some of the liquid. Reeds are typically burned or harvested in late fall and grow back in the spring. Liquid from the sludge that is not taken up by the reeds permeates downward to an underdrain collection system and is returned to the head of the plant. When the bed capacity is reached, the bed can be emptied and reused. Sludge must ultimately be properly disposed of at either a landfill or incinerator.

The primary outfall (Outfall 001) is a 16-inch diameter ductile iron pipe which runs 118 feet from the chlorine contact tank and extends 8 feet from the bank into the creek. The outfall pipe is just above the creek bottom and encased in concrete for protection. The end of the outfall pipe is open, there are no diffusers.

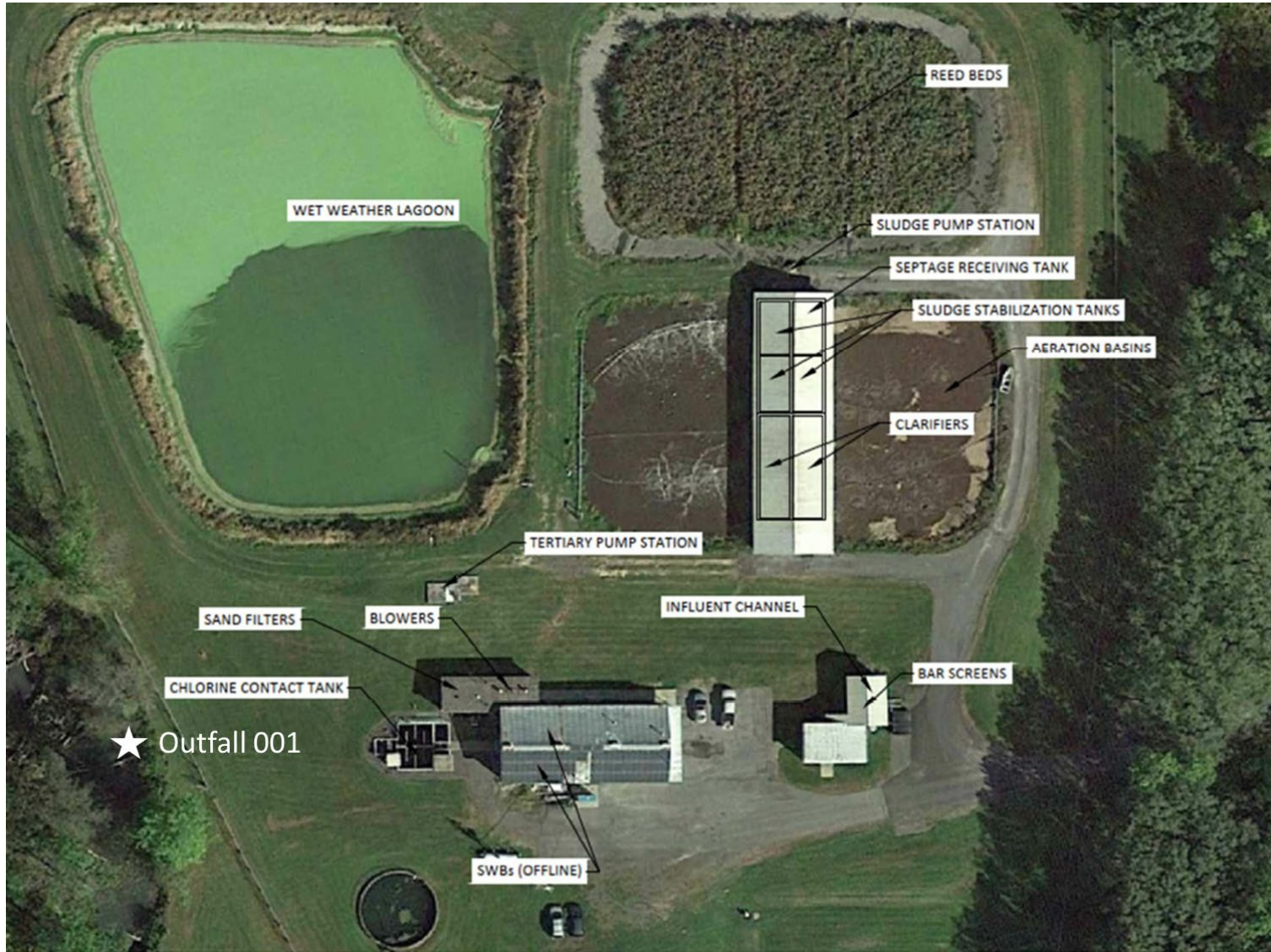
The wastewater treatment plant has had numerous upgrades and improvements since its construction in 1972, including in 1988, 1992, 2002 and most recently in 2010 to provide tertiary treatment and a design flow of 0.6 MGD. The original plant consisted of an Imhoff cone and pretreatment. Facultative lagoons, a comminutor, bypass piping, and sand filtration were added in 1988. In 1992, one of the facultative lagoons was split and converted into two aeration basins, and the second lagoon was converted into a wet weather equalization basin, which eventually became the ORF. In 2002-2003 valve improvements eliminated bypasses within the plant. In 2010, a new headworks building was constructed with a new mechanical bar screen, a flow bypass channel constructed with a manually cleaned bar screen, and new influent pumps with wet well level controls. In addition, the sand filters were rehabilitated, the clarifiers were improved, the sludge treatment reed beds were constructed, and a 200 kW generator installed. The 4.43 MGD ORF was added in 2010 to provide flexibility in managing wet weather flows.

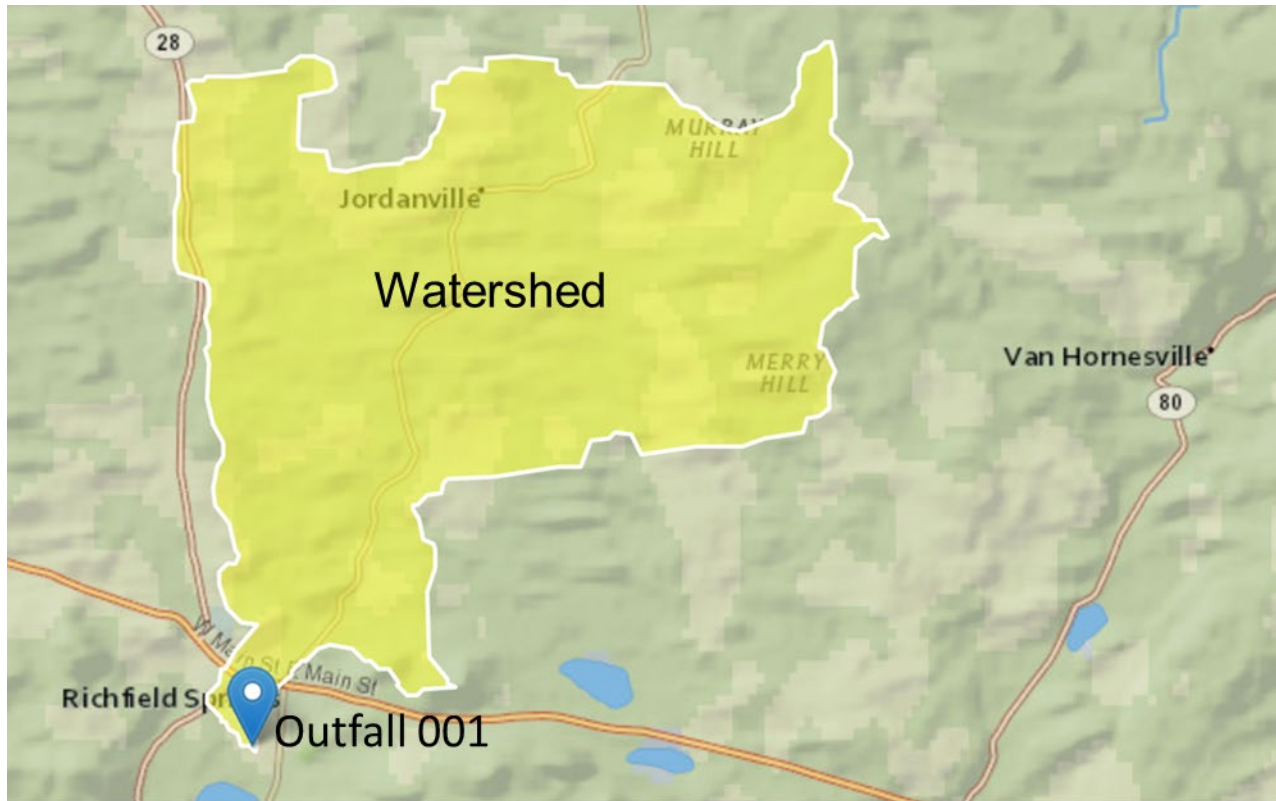
The permittee is in the planning stages of a full facility upgrade. The draft preliminary engineering report design includes new headworks, sequencing batch reactors (SBRs), improvements to the sludge holding tanks, and ultraviolet (UV) disinfection. The current sand filters would also be replaced with disk filters. With the upgrades, the flow from the overflow retention facility, described below, would likely be directed first to the cloth filters, then through UV disinfection.

The wastewater treatment plant includes an Overflow Retention Facility (ORF) also known as a Type II SSO. ORFs are wastewater storage facilities designed to retain excessive flows that would otherwise be bypassed. Discharge from the ORF is prohibited except as noted in 6 NYCRR 750-2.8(b)(2) and 40 CFR 122.41. If wet weather flows coming into the plant are too high and there is a risk of potentially flushing solids out of the aeration basins, or even overflowing the aeration basins and creating an emergency condition, excess flows can be diverted to the earthen ORF. Wastewater from the ORF can be returned to the head of the plant for full treatment or be discharged following chlorine disinfection and blended with the treated effluent from Outfall 001. Typically, the ORF holds excess flows until the storm passes, influent flows decrease, and the plant has available capacity to accept the wet weather flow. The operator opens a valve, and the wastewater in the ORF flows to the head of the plant for full treatment. The ORF was approved to provide protection to the administrative building and staff as an overflow from the aeration basins could erode the embankment and endanger the operator and equipment. The ORF was established in 2010 and has a design capacity of 4.43 million gallons. Treatment provided includes flow equalization and primary settling.

Very rarely and during extreme wet weather events, the capacity of both the plant and the ORF can be exceeded. In this case, the operator can open a different valve, and wastewater in the ORF flows to the chlorine contact tank, blending with treated flows from the plant. The combined wastewater would be chlorinated and dechlorinated (from May 1 through October 31), and then discharged via Outfall 001. The Village's SPDES permit includes monitoring and effluent limits on the blended discharge. The blended effluent limits meet secondary treatment standards but are less stringent than the permit requirements for Outfall 001. During wet weather flows, when flows are expected to exceed 400,000 GPD for an extended time, the operator will divert excess flows to the two US Filter package plant units. These units consist of a mixing tank, a clarifier consisting of an inclined plate with tube settlers (lamella), and a sand filter.

Site Overview





Canadarago Lake

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 05/01/2018 – 04/30/2023. Additional effluent mercury data was submitted in January 2022 to determine the appropriate sampling frequency and effluent limitations. [Appendix Link](#)

Interstate Water Pollution Control Agencies

Outfall 001 is located within the Chesapeake Bay watershed and Susquehanna River Basin Commission (SRBC) compact area which places additional requirements in the SPDES permit. [Appendix Link](#)

Receiving Water Information

The facility discharges via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	4952	Treated sanitary sewage	Ocquionis, Class C(T)

Reach Description: Ocquionis Creek (SR-204-P 392-5) is tributary to Canadarago Lake. Richfield Springs WWTP discharges to Ocquionis Creek approximately 0.6 miles upstream of the lake. Two tributaries converge in Ocquionis Creek, approximately 0.3 miles downstream of Outfall 001. The segment of Ocquionis Creek at the point of discharge is classified as C(T) (6 NYCRR Part 931.4, Table I, Item 1943). The mouth of Ocquionis Creek is less than one mile downstream of the outfall location. Canadarago Lake is classified as A(T) (6 NYCRR Part 931.4, Table I, Item 1933). Water quality standards applicable to Class A(T) were also reviewed for nitrate, nitrite, and nitrate and nitrite, and the disinfection season is being extended to year-round due to the downstream A(T) classification. See the [Pollutant Summary Table](#) for details,



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

Impaired Waterbody Information

The Ocquionis Creek (PWL No. 0601-0034) is not listed on the 2018 [New York State Section 303\(d\) List](#) of Impaired/Total Maximum Daily Load (TMDL) waters; however, this waterbody segment is located within the Chesapeake Bay Watershed and is subject to the applicable requirements of the [Chesapeake Bay TMDL](#) and New York's Phase III Watershed Implementation Plan (Phase III WIP) for the TMDL¹, as discussed below.

¹ See <https://www.dec.ny.gov/lands/33279.html>

Chesapeake Bay TMDL Watershed Information

The Village of Richfield Springs WWTF is considered a “Bay-Significant” municipal facility because its design flow is equal to or greater than 400,000 gallons per day. In accordance with the Phase III WIP, the nitrogen and phosphorus loads warrant discharge limits and effluent monitoring for these parameters.

The Village of Richfield Springs WWTF is required to sample and report Total Phosphorus as P, as well as Total Kjeldahl Nitrogen (TKN) as N, Nitrite (NO₂) as N, Nitrate (NO₃) as N, and to calculate Total Nitrogen as N. The Total Nitrogen and Total Phosphorus 12-month loads (TN 12-ML and TP 12-ML respectively) are defined as the sum of the current month loads added to the month loads from the eleven previous months for Nitrogen and Phosphorus, respectively. See the Pollutant Summary Table for a discussion on the derivation of Total Nitrogen and Total Phosphorus effluent limits.

The Water Quality Based Effluent Limits (WQBELs) below are set by DEC in accordance with the Phase II and III WIP.

Critical Receiving Water Data & Mixing Zone

The low flow condition for the Ocquionis Creek was obtained from a drainage basin ratio analysis with data from USGS gage station 1496363, located approximately one mile upstream of the outfall. The 7Q10 flow and drainage area at the gage were found from the USGS/NYSDEC Bulletin 74, 1979. The 1Q10 flow was estimated as half the 7Q10 and the 30Q10 flow was estimated as 1.2 times the 7Q10.

Gage Name: Ocquionis Creek at Richfield Springs
 Gage ID: 1496363
 Drainage Area at Gage (mi²): 20.3
 Drainage Area at Facility (mi²): 20.5
 7Q10 Flow at Gage (CFS): 0.5 Source: Bulletin 74
 Calculated 7Q10 Flow at Facility (CFS): 0.505
 Estimated 1Q10 (CFS): 0.25
 Estimated 30Q10 (CFS): 0.61

The 1Q10, 7Q10, and 30Q10 flows were used to calculate the acute, chronic, and human, aesthetic, wildlife (HEW) dilution ratios, respectively.

$$\text{Dilution Ratio} = (\text{Facility Flow} + \text{Low Flow}) / \text{Facility Flow}$$

Outfall No.	Acute Dilution Ratio A(A)	Chronic Dilution Ratio A(C)	Human, Aesthetic, Wildlife Dilution Ratio (HEW)	Basis
001	1.3:1	1.5:1	1.7:1	TOGS 1.3.1

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](#).

Whole Effluent Toxicity (WET) Testing

An evaluation of the discharge indicates the potential for toxicity based on the following criteria:

[Appendix Link](#)

- Previous WET testing indicated a problem including actual or predicted test failures/exceedances and demonstration of Reasonable Potential. (#6)

The WET Reasonable Potential Analysis (RPA) was limited to the 2023 dataset, as it is representative of current operating conditions given the reduction in Water Treatment Chemical (WTC) dosing, with the Reasonable Potential Multiplier (RPM) of 2.6 applied; however, earlier quarterly WET data from 2020-2022 is also included in the summary below for informational purposes as it 1) provides data for both species vs. just the more sensitive invertebrate species currently in use and 2) also documents the improvement in effluent quality over time.

Consistent with TOGS 1.3.2, a reasonable potential analysis was performed using the existing WET data for this facility (see data below). It was determined that while the analysis indicated no potential for toxicity in the effluent, WET testing is required based on the criteria listed above and WET action levels are being continued in the permit. Given the dilution available and location outside of the Great Lakes basin, the permit requires chronic only WET testing. Samples will be collected quarterly during years ending in 3 and 8. WET testing action levels of 0.3 TUa and 1.5 TUC have been included in the permit for each species. The acute dilution ratio is less than 3.3 and the acute action level has been set equal to the default value of 0.3 TUa. The chronic action levels represent the chronic dilution ratio.

Test Date	¹ MSS 48H LC50 (%Effluent)	² MSS TUa	³ TUa Action Level	⁴ MSS Survival 100% Effluent	⁵ Acute Test Result	⁶ MSS RPD TUa	⁷ Acute WET Limit Required	⁸ MSS 7D NOEC/IC25 (%Effluent)	⁹ MSS NOEC/IC25 TUc	¹⁰ TUc Action Level	¹¹ Chronic Test Result NOEC/IC25	¹² MSS RPD IC25 TUc	¹³ Chronic WET Limit Required
03/20	>100% (FI)	<0.3 (FI)	0.3	100% (FI)	Pass	<0.8	**No	>100% (FI) / 89.7% (I)	<1.0 (FI) / 1.1 (I)	4.0	Pass/Pass	2.9	No
06/20	79.8% (F)	1.3 (F)	0.3	15% (F)	Fail	3.4	Yes	25.0% (F) / 56.1% (F)	4.0 (F) / 1.8 (F)	4.0	^Pass/Pass	4.7	Yes
07/20	>100% (FI)	<0.3 (FI)	0.3	100% (FI)	Pass	<0.8	**No	50.0% (I) / 11.4% (I)	2.0 (I) / 8.8 (I)	4.0	#Pass/Fail	22.9	Yes
11/20	>100% (FI)	<0.3 (FI)	0.3	100% (FI)	Pass	<0.8	**No	>100% (FI)/>100% (FI)	<1.0 (FI)/<1.0 (FI)	4.0	Pass/Pass	<2.6	No
08/21	>100% (FI)	<0.3 (FI)	0.3	100% (FI)	Pass	<0.8	**No	25.0% (I) / 4.4% (I)	4.0 (I) / 22.7 (I)	4.0	\$Pass/Fail	59.0	Yes
11/21	>100% (FI)	<0.3 (FI)	0.3	100% (FI)	Pass	<0.8	**No	25.0% (I) / 28.8% (I)	4.0 (I) / 3.5 (I)	4.0	@Pass/@Pass	9.1	Yes
03/22	>100% (FI)	<0.3 (FI)	0.3	100% (FI)	Pass	<0.8	**No	>100% (FI)/>100% (FI)	<1.0 (FI)/<1.0 (FI)	4.0	Pass/Pass	<2.6	No
05/22	>100% (FI)	<0.3 (FI)	0.3	100% (FI)	Pass	<0.8	**No	50% (F)/>100% (FI)	2.0 (F)/<1.0 (FI)	4.0	Pass/Pass	<2.6	No
01/23	>100% (I)	<0.3 (I)	0.3	100% (I)	Pass	<0.8	**No	>100% (I)/>100% (I)	<1.0 (I)/<1.0 (I)	4.0	Pass/Pass	<2.6	No
04/23	>100% (I)	<0.3 (I)	0.3	100% (I)	Pass	<0.8	**No	>100% (I)/>100% (I)	<1.0 (I)/<1.0 (I)	4.0	Pass/Pass	<2.6	No
07/23	>100% (I)	<0.3 (I)	0.3	100% (I)	Pass	<0.8	**No	>100% (I)/>100% (I)	<1.0 (I)/<1.0 (I)	4.0	Pass/Pass	<2.6	No
10/23	>100% (I)	<0.3 (I)	0.3	100% (I)	Pass	<0.8	**No	>100% (I)/>100% (I)	<1.0 (I)/<1.0 (I)	4.0	Pass/Pass	<2.6	No

⁴Borderline pass although the fish growth NOEC is likely overestimated and closer to 50% with 0.938 (receiving water control), 0.829, 0.923, 0.901, 0.801 (15% effect) and 0.002 mg (100% effluent) with the Percent Minimum Significant Difference (PMSD) below the lower bound at 8.7% meaning the hypothesis test is highly sensitive due to the lack of variability making the IC25 point estimate the better toxicity indicator.

⁵The invertebrate fecundity NOEC is likely underestimated and fails being closer to 8.0 TUc with an average of 15.1 (receiving water control), 15.8, 10.8, 9.6, 11.4 and 7.7 (100% effluent) young produced and the PMSD approaching the upper bound at 46% meaning the hypothesis test is insensitive due to variability making the IC25 point estimate the better toxicity indicator.

⁶The invertebrate fecundity NOEC is likely underestimated and fails being closer to >16.0 TUc with an average of 15.3 (receiving water control), 9.8 (36% effect), 8.7, 9.2, 5.0 and 2.9 (100% effluent) young produced and the PMSD approaching the upper bound at 43% meaning the hypothesis test is insensitive due to variability making the IC25 point estimate the better toxicity indicator.

⁸Borderline pass.

¹Most Sensitive Species 48-hour Lethal Concentration: (F=Fish; I=Invertebrate) is the concentration or percentage of effluent that is lethal to 50% of the exposed organisms over a 48-hour period, and often indicates one species is more sensitive than the other during effluent testing.

²Most Sensitive Species Toxic Units Acute: is calculated as (100 / MSS 48H LC50). However, because ≤ 0.3 TUa is defined as the acceptable amount of Acute toxicity at the edge of the Acute mixing zone, and mathematically 100 / 100 = 1.0 (i.e. a failing result), non-toxic Acute test results are indicated as < 0.3.

³Toxic Unit Acute Action Level/Limit: is calculated as [Acute Dilution Factor x 0.3 TUa] representing the maximum allowable effluent TUa at the edge of the Acute mixing zone ensuring Acute protection of the receiving water. When the Acute Dilution Factor is < 3.3, the default Acute Action Level of 0.3 TUa is used representing the maximum allowable effluent TUa at the end of pipe.

⁴Most Sensitive Species Survival in 100% Effluent: is the lowest percentage of surviving organisms in 100% effluent, providing additional evidence of unacceptable Acute toxicity when the necessary 50% or greater mortality required to generate an LC50 has not been attained. *Denotes statistically significant mortality in 100% effluent as compared to the control.

⁵Acute Test Result: MSS TUa ≤ TUa Action Level/Limit for passing effluent test result and MSS TUa > TUa Action Level//Limit for a failing effluent test result. If unacceptable mortality (i.e. statistically significant as compared to the control) is noted in 100% effluent, this may also be considered a failing test result.

⁶Most Sensitive Species Reasonable Potential Determination Toxic Units Acute: is calculated as (MSS TUa x 2.6), the Reasonable Potential Multiplier when four quarterly tests have been completed, taking into account the statistical potential for effluent variability to occur causing an exceedance of the toxicity-based Action Level.

Permittee: Village of Richfield Springs
Facility: Richfield Springs Wastewater Treatment Plant
SPDES Number: NY0031411
USEPA Non-Major/Class 07 Municipal

Date: December 15, 2023 v.1.17
Permit Writer: Catherine Winters
Water Quality Reviewer: Catherine Winters
Full Technical Review

⁷Acute Whole Effluent Toxicity Limit Required: $MSS\ RPD\ TUa \leq TUa\ Action\ Level$, then no toxicity-based Limit is required, and the Action Level remains in place. If $MSS\ RPD\ TUa > TUa\ Action\ Level$, then a toxicity-based Limit is required, and the Action Level becomes the Limit. **In low dilution situations, the application of the RPD to the Acute results often mathematically suggests the need for Acute WET Limits even when there is no toxicity evident in 100% effluent (i.e. a non-detect). Therefore, this data cannot be used to implement a WET Limit.

⁸Most Sensitive Species 7-day No Observed Effect Concentration or 25% Inhibition Concentration: is the highest concentration or percentage of effluent tested that causes no statistically significant effect to the exposed test organisms as compared to the control over a 7-day period, or the concentration or percentage of effluent that causes a 25% reduction in survival, growth, or reproduction for the test population.

⁹Most Sensitive Species Toxic Units Chronic: is calculated as $(100 / MSS\ 7D\ NOEC)$ or $(100 / MSS\ 7D\ IC25)$.

¹⁰Toxic Unit Chronic Action Level/Limit: is calculated as $[Chronic\ Dilution\ Factor \times 1.0\ TUc]$ representing the maximum allowable effluent TUc at the edge of the Chronic mixing zone ensuring Chronic protection of the receiving water.

¹¹Chronic Test Result: $MSS\ NOEC/IC25\ TUc \leq TUc\ Action\ Level/Limit$ for passing effluent test result and $MSS\ NOEC/IC25\ TUc > TUc\ Action\ Level/Limit$ for a failing effluent test result.

¹²Most Sensitive Species Reasonable Potential Determination Toxic Units Chronic: is calculated as $(MSS\ IC25\ TUc \times 2.6)$, the Reasonable Potential Multiplier when four quarterly tests have been completed, taking into account the statistical potential for effluent variability to occur causing an exceedance of the toxicity-based Action Level.

¹³Chronic Whole Effluent Toxicity Limit Required: $MSS\ RPD\ IC25\ TUc \leq TUc\ Action\ Level$, then no toxicity-based Limit is required, and the Action Level remains in place. If $MSS\ RPD\ IC25\ TUc > TUc\ Action\ Level$, then a toxicity-based Limit is required, and the Action Level becomes the Limit. ***In low dilution situations, the application of the RPD to the Chronic results often mathematically suggests the need for Chronic WET Limits even when there is no toxicity evident in 100% effluent (i.e. a non-detect). Therefore, this data cannot be used to implement a WET Limit.

[Anti-backsliding](#)

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

[Appendix Link](#)

[Antidegradation](#)

The permit contains effluent limitations which ensure that the best usages of the receiving waters will be maintained. The Notice of Complete Application published in the Environmental Notice Bulletin contains information on the State Environmental Quality Review (SEQR)² determination.

[Appendix Link](#)

[Discharge Notification Act Requirements](#)

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

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

[Capacity, Management, Operation and Maintenance \(CMOM\) Program](#)

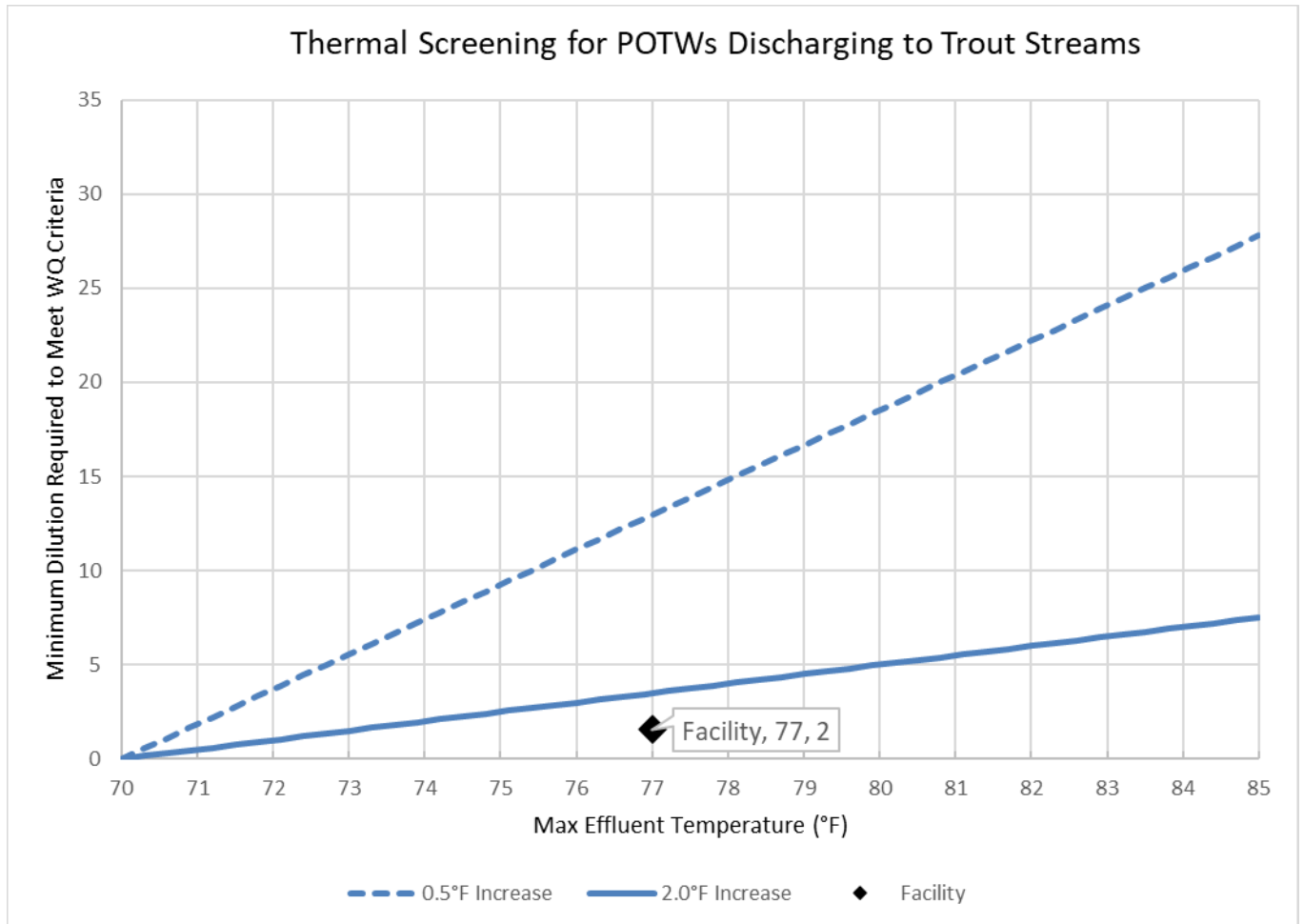
The permittee is required to develop and implement a CMOM program to reduce wet weather flows and eliminate discharges from the ORF. This requirement is necessary because the permittee has an ORF.

[Temperature Requirements for Municipal Discharges to Trout Streams](#)

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

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

² As prescribed by 6 NYCRR Part 617



Mercury³

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

The facility is a Class 07 municipal facility, outside of the Great Lakes Basin, that has a mercury source (hauled waste/septage) and the permit includes requirements for the implementation of MMP Type II.

The permit includes a daily max total mercury effluent limitation of 50 ng/L, sampled semi-annually. The facility has ≥10 effluent mercury data points and the existing effluent quality (EEQ) of 4.7 ng/L was calculated from the lognormal 95th percentile of 11 mercury effluent samples collected from 08/12/2021 to 02/09/2021. A mercury minimization program consisting of the following is also required:

- Additional monitoring of key locations, as defined in the MMP
- Control strategy for implementation of the MMP
- Annual status report (maintained onsite)

³ In accordance with DOW 1.3.10 Mercury – SPDES Permitting & Multiple Discharge Variance (MDV), December 30, 2020.

The facility is located outside the Great Lakes Basin and the EEQ ≤ 12 ng/L; therefore, the permit includes a 12-month rolling average total mercury effluent limitation equal to 12 ng/L.

As the EEQ is ≤ 12 ng/L, the sampling frequency in the permit is to semi-annually. The permit language reflects additional reductions in the MMP requirements.

Schedule of Compliance

A Schedule of Compliance is being included⁴ for the following items ([Appendix Link](#)):

- Compliance period for attainment of final effluent limits for BOD₅, ammonia, nitrate, nitrite, nitrate and nitrate, total residual chlorine
 - The permittee cannot immediately comply with the new limitations and is planning a full facility upgrade. See [Facility Information](#) for details of the planned upgrade.

Schedule of Additional Submittals

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

- Emerging contaminant monitoring
- Water treatment chemical annual report
- Annual flow certification
- WET testing
- Wet weather operations plan
- Capacity, management, operation, and maintenance (CMOM) program plan
- CMOM annual report
- Mercury minimization plan (maintain onsite)

Emerging Contaminant Monitoring

Emerging Contaminants, such as Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonic acid (PFOS), and 1,4-Dioxane (1,4-D), have been used in a wide variety of consumer and industrial product as well as in manufacturing processes for decades. These contaminants do not break down easily, therefore their presence in wastewater can remain a concern for years following their discontinued use. As the science surrounding these contaminants is still evolving, additional monitoring is needed to better understand potential sources and background levels. For more information on emerging contaminants, please see the NYSDEC Division of Water web page: <https://www.dec.ny.gov/chemical/127939.html>.

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 Department 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 Department 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.

⁴ Pursuant to 6 NYCRR 750-1.14

OUTFALL AND RECEIVING WATER SUMMARY TABLE

Outfall	Latitude	Longitude	Receiving Water Name	Water Class	Water Index No. / Priority Waterbody Listing (PWL) No.	Major / Sub Basin	Hardness (mg/l)	1Q10 (MGD)	7Q10 (MGD)	30Q10 (MGD)	Critical Effluent Flow (MGD)	Dilution Ratio		
												A(A)	A(C)	HEW
001	42° 50' 44" N	74° 59' 25" W	Ocuquionis Creek	C(T)	SR-204-P 392-5 PWL: 0601-0034	06/01	N/A ⁵	0.16	0.33	0.39	0.6	1.3:1	1.5:1	1.7:1

POLLUTANT SUMMARY TABLE

Outfall 001

Outfall #	001	Description of Wastewater: sanitary													
		Type of Treatment: screening and grit removal, extended aeration, clarifier, lamella package plant of additional settling and filtration, chlorination and dechlorination													
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 05/01/2018 to 04/30/2023 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	0.60	0.19 Actual Average	55/5	0.6	TOGS 1.3.3	Narrative: No alterations that will impair the waters for their best usages.				703.2	-	TBEL	
		Daily Max	Monitor	0.51 Actual Average	57/3	-	-	-				-	-	Monitor	
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	6.0	6.7 Actual Min	59/1	6.0	TOGS 1.3.3	-	-	6.5 – 8.5	Range	6.5 - 8.5	703.3	-	TBEL
		Maximum	9.0	8.0 Actual Max	59/1	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.															

⁵ No hardness data was available or needed for developing this permit.

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 #	001	Description of Wastewater: sanitary													
		Type of Treatment: screening and grit removal, extended aeration, clarifier, lamella package plant of additional settling and filtration, chlorination and dechlorination													
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		
Temperature	°F	Daily Max	Monitor	77 Actual Max	60/0	-	-	-	Narrative (Trout): No discharge at a temperature over 70F (21C) shall be permitted at any time to streams classified for trout				704.2	-	Action Level
		Monthly Avg	Monitor	73 Actual Max	60/0	-	-	-	-				-	-	Monitor
See the Temperature Requirements for Municipal Discharges to Trout Streams section of the fact sheet for a full discussion.															
Dissolved Oxygen (DO)	mg/L	Daily Min	7.0	7.0* Actual min	60/0	7.0	TOGS 1.3.1	-	4.1** Critical Point	(T) 5.0 mg/L	Narrative	5.0	703.3	-	TBEL
		<p>*The current DO limit is year-round and existing effluent quality is for the year-round data. **DO at confluence with the lake.</p> <p>The downstream DO concentration was modeled using the Streeter-Phelps equations and the following assumptions: Effluent DO = 7 mg/L (previous permit limit), Effluent UOD = 14 mg/L (calculated from BOD₅ and NOD), Effluent BOD₅ = 5 mg/L (TOGS 1.3.1), Effluent NOD = 6.6 mg/L (calculated from ammonia water quality standard of 0.9 mg/L).</p> <p>SUMMER 6/1 – 10/31 Reach Description: The model included the Village of Richfield Springs WWTP and of the confluence of two tributaries to the Occuionis Creek. The reach extended ~0.3 mile from the WWTP to the confluence of the tributaries and another ~0.3 mile from the tributaries to Canadarago Lake (Class A(T), WIN: SR-204-P 392).</p> <p>The model showed that WQBELs for DO, CBOD₅, and ammonia are necessary to maintain downstream water quality. The existing limits were determined to not be protective of water quality for DO; therefore, ISEL limitations are being applied to the draft permit. In accordance with TOGS 1.3.1, ISEL limits are generally recognized as representing the highest degree of treatment that can reasonably be achieved by a wastewater facility treating domestic type waste.</p>													
Dissolved Oxygen (DO)	mg/L	Daily Min	7.0	7.0* Actual min	60/0	7.0	TOGS 1.3.1	-	5.5** Critical Point	(T) 5.0 mg/L	Narrative	5.0	703.3	-	TBEL
		<p>*The current DO limit is year-round and existing effluent quality is for the year-round data. **DO at confluence with the lake.</p> <p>The downstream DO concentration was modeled using the Streeter-Phelps equations and the following assumptions: Effluent DO = 7 mg/L (previous permit limit), Effluent UOD = 21 mg/L (calculated from BOD₅ and NOD), Effluent BOD₅ = 5 mg/L (TOGS 1.3.1), Effluent NOD = 14 mg/L (calculated from ammonia water quality standard of 1.9 mg/L).</p> <p>WINTER 11/1 – 5/31 Reach Description: The model included the Village of Richfield Springs WWTP and of the confluence of two tributaries to the Occuionis Creek. The reach extended ~0.3 mile from the WWTP to the confluence of the tributaries and another ~0.3 mile from the tributaries to Canadarago Lake (Class A(T), WIN: SR-204-P 392).</p> <p>The model showed that WQBELs for DO, CBOD₅, and ammonia are necessary to maintain downstream water quality. The model demonstrated that WQBELs equal to the limitations from TOGS 1.3.1 that represent the highest degree of treatment that can reasonably be achieved by a wastewater treatment facility treating domestic type waste will be protective of water quality.</p>													

Outfall #	001	Description of Wastewater: sanitary													
		Type of Treatment: screening and grit removal, extended aeration, clarifier, lamella package plant of additional settling and filtration, chlorination and dechlorination													
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 Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
5-day Biochemical Oxygen Demand (BOD ₅)	mg/L	Monthly Avg	10	5.5 Average	18/42	Monitor	750-1.13	-	See Dissolved Oxygen			703.3	-	TBEL	
		Daily Max	Monitor	5.5* Average	18/42	5	TOGS 1.3.1								See TBEL
	lbs/d	Monthly Avg	25	12	58/2	Monitor	750-1.13								-
		Daily Max	Monitor	22*	58/2	25	-								-
	% Rem	Minimum	85	91 Actual Min	60/0	85	TOGS 1.3.3								-
*Reported as 7-day average. The maximum 7-day average BOD ₅ reported was 9.0 mg/L. The existing limitations are for BOD ₅ . The dissolved oxygen model demonstrated a need for CBOD ₅ limitations. Consistent with TOGS 1.3.1 and TOGS 1.3.3 the TBELs represent the highest degree of treatment that can reasonably be achieved by a wastewater treatment facility treating domestic type waste will be protective of water quality. Compliance with the daily maximum WQBEL will ensure compliance with both the monthly average and daily maximum WQBEL; therefore, the monthly average requirement will be monitoring. See justification for Dissolved Oxygen.															
Total Suspended Solids (TSS)	mg/L	Monthly Avg	30	6.4	36/24	30	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		
		7 Day Avg	45	9.5	36/24	45	TOGS 1.3.3								
	lbs/d	Monthly Avg	75	11	60/0	150	TOGS 1.3.3								
		7 Day Avg	110	19	60/0	225	TOGS 1.3.3								
	% Rem	Minimum	85	94 Actual Min	60/0	85	TOGS 1.3.3								
Consistent with TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. Given that adequate dilution is available, an effluent limitation equal to the TBEL, and consistent with TOGS 1.3.3, is protective of water quality standards. The existing load limitations are more stringent than the TBEL and are being maintained.															
Settleable Solids	mL/L	Daily Max	0.3	0.1	1/59	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 protective of the WQS.	

Outfall #	001	Description of Wastewater: sanitary													
		Type of Treatment: screening and grit removal, extended aeration, clarifier, lamella package plant of additional settling and filtration, chlorination and dechlorination													
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		
Nitrogen, Ammonia (as N) June 1 st – Oct. 31 st	mg/L	Daily Max	2.2	2.5 Actual Max	10/15	-	-	-	-	-	-	-	-	-	Discontinued
		Monthly Average	Monitor	2.1 Actual Max	18/17	0.9	TOGS 1.3.1	0.082	-	0.9	A(C)	1.4	703.5	-	TBEL
	lb/d	Daily Max	Monitor	3.2	17/8	-	-	-	-	-	-	-	-	-	Discontinued
		Monthly Average	Monitor	1.8	10/15	-	-	-	-	-	-	-	-	-	Discontinued
The detection limit values were all less than 0.9 mg/L. The WQBEL was calculated using the water quality standard, an ambient upstream concentration of 0.082 mg/L and application of the HEW dilution ratio. The existing limits were determined to not be protective of water quality for DO; therefore, ISEL limitations are being applied to the draft permit. In accordance with TOGS 1.3.1, ISEL limits are generally recognized as representing the highest degree of treatment that can reasonably be achieved by a wastewater facility treating domestic type waste.															
Nitrogen, Ammonia (as N) Nov. 1 st – May 31 st	mg/L	Daily Max	7.0	10 Actual Max	26/9	-	-	-	-	-	-	-	-	-	Discontinued
		Monthly Average	Monitor	5.2 Actual Max	18/17	1.9	TOGS 1.3.1	0.082	-	1.9	A(C)	3.0	703.5	-	TBEL
	lb/d	Daily Max	Monitor	40	32/3	-	-	-	-	-	-	-	-	-	Discontinued
		Monthly Average	Monitor	12	25/10	-	-	-	-	-	-	-	-	-	Discontinued
The detection limit values were all less than 1.9 mg/L. The WQBEL was calculated using the water quality standard, an ambient upstream concentration of 0.082 mg/L and application of the HEW dilution ratio. The existing limits were determined to not be protective of water quality for DO; therefore, ISEL limitations are being applied to the draft permit. In accordance with TOGS 1.3.1, ISEL limits are generally recognized as representing the highest degree of treatment that can reasonably be achieved by a wastewater facility treating domestic type waste.															
Nitrogen, Total Kjeldahl (TKN)	mg/L	Monthly Average	Monitor	4.7	39/21	-	-	-	-	-	-	-	-	-	Monitor
	lb/d	Monthly Average	Monitor	13	46/11	-	-	-	-	-	-	-	-	-	Monitor
Consistent with the Phase III WIP, sampling and reporting for TKN is being added to the permit and will be used to inform the individual constituents of the Total Nitrogen limitations.															

Outfall #	Description of Wastewater: sanitary														
	Type of Treatment: screening and grit removal, extended aeration, clarifier, lamella package plant of additional settling and filtration, chlorination and dechlorination														
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		
Nitrate	mg/L	Monthly Average	Monitor	23	59/1	-	-	-	16	10	H(WS)	17	703.5	-	WQBEL
	lb/d	Monthly Average	Monitor	30	60/0	-	-	-	-	-	-	-	-	-	Monitor
	Consistent with the Phase III WIP, sampling and reporting for nitrate is being added to the permit and will be used to inform the individual constituents of the Total Nitrogen limitations. There is no Class C WQS for Nitrate; however, the Ocquionis Creek flows into Canadarago Lake, which is Class A(T), ~ 0.6 miles downstream of the Village of Richfield Springs outfall; therefore, reasonable potential analysis was performed for the Class A standard. The projected instream concentration was calculated using the maximum reported effluent concentration of 26.1 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.0 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates a reasonable potential to cause or contribute to a WQS violation and therefore a WQBEL is specified.														
Nitrite	mg/L	Monthly Average	Monitor	1.1	4/56	-	-	-	0.42	1.0	H(WS)	1.7	703.5	-	Monitor
		Daily Max	-	-	-	-	-	-	0.45	0.020	A(C)	0.031	703.5	-	WQBEL
	lb/d	Monthly Average	Monitor	0.49	34/26	-	-	-	-	-	-	-	-	-	Monitor
	Consistent with the Phase III WIP, sampling and reporting for nitrate is being added to the permit and will be used to inform the individual constituents of the Total Nitrogen limitations. Reasonable potential to exceed both the Class C, A(C), and the Class A, H(WS) standards was assessed for Nitrite. The Ocquionis Creek flows into Canadarago Lake, which is Class A(T), ~ 0.6 miles downstream of the Village of Richfield Springs outfall. Monthly Average: The projected instream concentration was calculated using the maximum reported effluent concentration of 0.7 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.0 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates a reasonable potential to cause or contribute to a WQS violation and therefore a WQBEL is specified. The daily maximum standard is more stringent than the monthly average and protective of both water quality standards; therefore, only a daily maximum limitation is specified. The monthly average monitoring requirement will be maintained.														

Outfall #	Description of Wastewater: sanitary														
	Type of Treatment: screening and grit removal, extended aeration, clarifier, lamella package plant of additional settling and filtration, chlorination and dechlorination														
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		
	mg/L	Monthly Average	Monitor	23	59/1	-	-	-	16	10	H(WS)	17	703.5	-	WQBEL
	lb/d	Monthly Average	Monitor	30	60/0	-	-	-	-	-	-	-	-	-	No Limitation
Nitrite and Nitrate	Consistent with the Phase III WIP, sampling and reporting for nitrate is being added to the permit and will be used to inform the individual constituents of the Total Nitrogen limitations.														
	There is no Class C WQS for Nitrate+Nitrite; however, the Occuionis Creek flows into Canadarago Lake, which is Class A(T), ~ 0.6 miles downstream of the Village of Richfield Springs outfall; therefore, reasonable potential analysis was performed for the Class A standard. The projected instream concentration was calculated using the maximum reported effluent concentration of 26.1 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.0 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates a reasonable potential to cause or contribute to a WQS violation and therefore a WQBEL is specified.														
Total Nitrogen	lb/mon	Monthly Total	Monitor	960	60/0	-	-	None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.				703.2	-	Monitor	
	lb/yr	12 Month Rolling Total	24,000	8,100 Actual Max	60/0	24,000	WIP III						-	TMDL	
	mg/L	Monthly Average	Monitor	20	60/0	-	-						-	Monitor	
	lb/d	Monthly Average	Monitor	27	60/0	-	-						-	Monitor	
Consistent with the Phase III WIP the permit includes an annual loading limitation of 24,000 lbs/yr. See the Chesapeake Bay TMDL discussion in this fact sheet.															
Total Phosphorus	mg/L	Monthly Avg	Monitor	0.14	9/51	0.5	WIP III	Narrative: 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	
	lb/d	Monthly Avg	Monitor	0.36	9/51	-	-							Monitor	
	lb/mon	Monthly Total	Monitor	12	60/0	-	-							Monitor	
	lb/yr	12 Month Rolling Total	913	110	60/0	913	WIP III							TBEL	
Consistent with the Phase III WIP, and to maximize phosphorus removal ⁷ , the permit includes a total phosphorus concentration limit of 0.5 mg/L expressed as a monthly average and a final annual loading limitation of 913 lbs/yr. The 0.5 mg/L phosphorus concentration is achievable with the current treatment technology employed at the facility, however additional time is being given to optimize treatment and a Schedule of Compliance has been included in the permit. This concentration limit shall become effective 12 months after the effective date of the permit. The annual loading limitation was calculated from a 0.5 mg/L concentration at the design flow of 0.6 MGD for 365 days of the year. See the Chesapeake Bay TMDL discussion in this fact sheet.															

⁷ Consistent with NYCRR 750-2.8(a)(5).

Outfall #	001	Description of Wastewater: sanitary													
		Type of Treatment: screening and grit removal, extended aeration, clarifier, lamella package plant of additional settling and filtration, chlorination and dechlorination													
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 Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Total Mercury	ng/L	Daily Max	-	-	-	-	-	-	-	0.7	H(FC)	50	GLCA	-	DOW 1.3.10
	ng/L	12 MRA	-	-	-	4.7	EEQ	-	-	0.7	H(FC)	12	-	-	DOW 1.3.10
Eleven samples were collected from August 2021 to February 2022 to determine the existing effluent quality of mercury at Richfield Springs WWTP. See Mercury section of this fact sheet .															
Coliform, Fecal	#/100 ml	30d Geo Mean	200	30	16/14	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	74	16/14	400	TOGS 1.3.3	-							
Consistent with TOGS 1.3.3, effluent disinfection is required year-round because it is necessary to protect public health. Fecal coliform effluent limitations equal to the TBEL are specified.															
Total Residual Chlorine (TRC)	mg/L	Daily Max	0.10	< 0.1	0/30	2.0	TOGS 1.3.3	-	-	0.005	A(C)	0.0077	703.5	0.03	ML
	Year-round 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.														
Additional Pollutants Detected															
Total Dissolved Solids (TDS)	mg/L	Daily Max	-	550 Actual Max	3/0	-	-	-	-	-	-	-	-	-	Monitor
	Only three samples were collected. Additional monitoring will be required in accordance with 6 NYCRR 750-1.13.														
Sulfite	mg/L	Daily Max	-	-	-	-	-	-	-	200	A(C)	-	703.5	-	Monitor
	Sodium bisulfite is used for dechlorination at this facility. In accordance with 6 NYCRR 750-1.13, sulfite monitoring is being added to the permit to assess the need for a sulfite limitation during the next permit review.														

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, and/or in response to updated regulatory requirements. Pollutant monitoring data is also reviewed to determine the presence of additional contaminants that should be included in the permit based on a reasonable potential analysis to cause or contribute to a water quality standards violation.

Anti-backsliding

Anti-backsliding requirements are specified in the CWA sections 402(o) and 303(d)(4), ECL 17-0809, and regulations at 40 CFR 122.44(l) and 6 NYCRR 750-1.10(c) and (d). Generally, the relaxation of effluent limitations in permits is prohibited unless one of the specified exceptions applies, which will be cited on a case-by-case basis in this fact sheet. Consistent with current case law⁸ and USEPA interpretation⁹ anti-backsliding requirements do not apply should a revision to the final effluent limitation take effect before the scheduled date of compliance for that final effluent limitation.

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

⁹ 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.

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

Mixing Zone Analyses

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

"EPA Technical Support Document for Water Quality-Based Toxics Control" (March 1991); EPA Region VIII's "Mixing Zones and Dilution Policy" (December 1994); NYSDEC TOGS 1.3.1, "Total

Maximum Daily Loads and Water Quality-Based Effluent Limitations” (July 1996); “CORMIX v11.0” (2019).

Critical Flows

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

Reasonable Potential Analysis (RPA)

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

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

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

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

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.

Whole Effluent Toxicity (WET) Testing:

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

1. There is the presence of substances in the effluent for which ambient water quality criteria do not exist.
2. There are uncertainties in the development of TMDLs, WLAs, and WQBELs, caused by inadequate ambient and/or discharge data, high natural background concentrations of pollutants, available treatment technology, and other such factors.
3. There is the presence of substances for which WQBELs are below analytical detectability.
4. There is the possibility of complex synergistic or additive effects of chemicals, typically when the number of metals or organic compounds discharged by the permittee equals or exceeds five.
5. There are observed detrimental effects on the receiving water biota.
6. Previous WET testing indicated a problem.
7. POTWs which exceed a discharge of 1 MGD. Facilities of less than 1 MGD may be required to test, e.g., POTWs <1 MGD which are managing industrial pretreatment programs.

Minimum Level of Detection

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

Monitoring Requirements

CWA section 308, 40 CFR 122.44(i), 6 NYCRR 750-1.13, and 750-2.5 require that monitoring be included in permits to determine compliance with effluent limitations. Additional effluent monitoring may also be required to gather data to determine if effluent limitations may be required. The permittee is responsible for conducting the

monitoring and reporting results on Discharge Monitoring Reports (DMRs). The permit contains the monitoring requirements for the facility. Monitoring frequency is based on the minimum sampling necessary to adequately monitor the facility's performance and characterize the nature of the discharge of the monitored flow or pollutant. Variable effluent flows and pollutant levels may be required to be monitored at more frequent intervals than relatively constant effluent flow and pollutant levels (6 NYCRR 750-1.13). For industrial facilities, sampling frequency is based on guidance provided in TOGS 1.2.1. For municipal facilities, sampling frequency is based on guidance provided in TOGS 1.3.3.

Other Conditions

Mercury

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

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

Schedules of Compliance

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

Mini Industrial Pretreatment Program

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

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