



Department of
Environmental
Conservation

State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code: 4952	NAICS Code: 221320	SPDES Number:	NY0027561
Discharge Class (CL):	05	DEC Number:	7-1102-00009/00001
Toxic Class (TX):	T	Effective Date (EDP):	
Major-Sub Drainage Basin:	06 - 02	Expiration Date (ExDP):	
Water Index Number:	SR 44-14	Item No.: 931 - 178	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:	City of Cortland	Attention:	Mayor
Street:	25 Court Street		
City:	Cortland	State:	NY Zip Code: 13045
Email:		Phone:	(607) 756-7227

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL										
Name:	LeRoy R Summerson WWTF									
Address / Location:	251 Port Watson Street						County:	Cortland		
City:	Cortland				State:	NY		Zip Code:	13045	
Facility Location:	Latitude:	42 °	35 ' 47.9 " N	& Longitude:	76 °	09 ' 30.4 " W				
Primary Outfall No.:	001	Latitude:	42 °	35 ' 48 " N	& Longitude:	76 °	09 ' 29 " W			
Outfall Description:	Treated Sanitary	Receiving Water:	Toughnioga River			Class:	B	Standard:	B	

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

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

DISTRIBUTION:

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

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

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DEFINITIONS

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

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
001	All year, unless otherwise specified	Tioughnioga River	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	9.0	MGD			Continuous	Recorder	X		
pH	Daily Minimum	6.0	SU			3/day	Grab		X	
	Daily Maximum	9.0	SU							
CBOD ₅ June 1 – October 31	Monthly Average	25	mg/L	1900	lbs/d	2/week	24-hr. Comp.	X	X	1
	7-Day Average	30	mg/L	2300	lbs/d	2/week	24-hr. Comp.	X	X	
CBOD ₅ November 1 – May 31	Monthly Average	25	mg/L	1900	lbs/d	2/week	24-hr. Comp.	X	X	1
	7-Day Average	40	mg/L	3000	lbs/d	2/week	24-hr. Comp.	X	X	
Total Suspended Solids (TSS)	Monthly Average	30	mg/L	2200	lbs/d	2/week	24-hr. Comp.	X	X	1
	7-Day Average	45	mg/L	3400	lbs/d	2/week	24-hr. Comp.	X	X	
Settleable Solids	Daily Maximum	0.3	mL/L			3/day	Grab	X	X	
Dissolved Oxygen	Daily Minimum	Monitor	mg/L			2/week	Grab		X	
Ammonia (as N) June 1 – October 31	Monthly Average	1.9	mg/L			2/week	24-hr. Comp.		X	2
Ammonia (as N) November 1 – May 31	Monthly Average	7.0	mg/L			2/week	24-hr. Comp.		X	
Nitrite (NO ₂) as N	Monthly Average	Monitor	mg/L	Monitor	lbs/d	2/week	24-hr. Comp.		X	
Nitrite (NO ₂) as N	Monthly Average	Monitor	mg/L	Monitor	lbs/d	2/week	24-hr. Comp.		X	
	Daily Maximum	0.07	mg/L			2/week	24-hr. Comp.		X	2
Nitrate (NO ₃) as N	Monthly Average	Monitor	mg/L	Monitor	lbs/d	2/week	24-hr. Comp.		X	
Total Kjeldahl Nitrogen (TKN) (as N)	Monthly Average	Monitor	mg/L	Monitor	lbs/d	2/week	24-hr. Comp.		X	
Total Nitrogen (as N)	Monthly Average	Monitor	mg/L	Monitor	lbs/d	2/week	24-hr. Comp.		X	3
	Monthly Total			Monitor	lbs/m	1/month	24-hr. Comp.		X	4
	12 Month Rolling Total			219,000	lbs/yr	1/month	24-hr. Comp.		X	2, 5
Total Phosphorus (as P)	Monthly Average	1.0	mg/L	Monitor	lbs/d	2/week	24-hr. Comp.		X	2
	Monthly Total			Monitor	lbs/m	1/month	24-hr. Comp.		X	4
	12 Month Rolling Total			13,700	lbs/yr	1/month	24-hr. Comp.		X	2, 5

Total Mercury	12 MRA	12	ng/L			Quarterly	Grab	X	X	6, 7
	Daily Maximum	50	ng/L			Quarterly	Grab	X	X	6, 7
Total Cadmium	Daily Maximum	Monitor	µg/L	0.74	lbs/d	1/month	24-hr. Comp.		X	
Free Cyanide	Daily Maximum	19	µg/L	Monitor	lbs/d	1/month	24-hr. Comp.		X	2
Total Phenolics	Daily Max	Monitor	µg/L	0.83	lbs/d	1/month	24-hr. Comp.		X	
Total Chlorinated Phenols	Daily Max	Monitor	µg/L			1/month	24-hr. comp		X	
Total Unchlorinated Phenols	Daily Max	Monitor	µg/L			1/month	24-hr. comp		X	
Biennial Pollutant Scan						1/Two Years	-		X	8
Temperature	Daily Maximum				°F	3/day	Grab	X	X	
ACTION LEVEL PARAMETERS	Type	Action Level	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Copper, Total	Daily Maximum	Monitor	mg/L	2.7	lbs/day	2/year	24-hr. comp		X	9
Iron, Total	Daily Maximum	Monitor	mg/L	130	lbs/day	2/year	24-hr. comp		X	9
Lead, Total	Daily Maximum	Monitor	mg/L	1.2	lbs/day	2/year	24-hr. comp		X	9
Silver, Total	Daily Maximum	Monitor	mg/L	0.15	lbs/day	2/year	24-hr. comp		X	9
Bis(2-ethylexyl)phthalate	Daily Maximum	Monitor	mg/L	0.6	lbs/day	2/year	24-hr. comp		X	9
EFFLUENT DISINFECTION		Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
May 1 - October 31										
Coliform, Fecal	30-Day Geometric Mean	200	No./100 mL			2/week	Grab		X	
Coliform, Fecal	7-Day Geometric Mean	400	No./100 mL			2/week	Grab		X	
Chlorine, Total Residual	Daily Maximum	30	µg/L			3/day	Grab		X	2, 10, 11
WHOLE EFFLUENT TOXICITY (WET) TESTING		Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
June 1 - October 31										
WET - Acute Invertebrate	See footnote			1.0	TUa	Quarterly	See footnote		X	7, 11
WET - Acute Vertebrate	See footnote			1.0	TUa	Quarterly	See footnote		X	7, 11
WET - Chronic Invertebrate	See footnote			3.5	TUc	Quarterly	See footnote		X	7, 11
WET - Chronic Vertebrate	See footnote			3.5	TUc	Quarterly	See footnote		X	7, 11
WHOLE EFFLUENT TOXICITY (WET) TESTING		Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
November 1 - May 31										
WET - Acute Invertebrate	See footnote			1.5	TUa	Quarterly	See footnote		X	7, 11
WET - Acute Vertebrate	See footnote			1.5	TUa	Quarterly	See footnote		X	7, 11
WET - Chronic Invertebrate	See footnote			6.1	TUc	Quarterly	See footnote		X	7, 11
WET - Chronic Vertebrate	See footnote			6.1	TUc	Quarterly	See footnote		X	7, 11

Footnotes on page 6

FOOTNOTES:

1. Effluent shall not exceed 15% and 15% of influent concentration values for CBOD₅ & TSS respectively.
2. This is a final effluent limitation. See Schedule of Compliance for any applicable interim effluent limitations.
3. Total Nitrogen (as N) = [Total Kjeldahl Nitrogen (TKN), as N] + [Nitrite (NO₂), as N] + [Nitrate (NO₃), as N]
4. The monthly total (lbs/month) is calculated as the monthly average load (lbs/d) multiplied by the number of days in the month.
5. The 12-month rolling total (lbs/year) is calculated as the current month load added to the month loads from the previous eleven months.
6. Mercury monitoring shall be performed using EPA Method 1631.
7. Quarterly samples shall be reported as 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).
8. Biennial Pollutant Scan: The permittee shall perform effluent sampling every two (2) years for all applicable pollutants identified in the NY-2A Application, Tables A - D. Sampling data shall be collected according to the guidance in the NY-2A application and maintained by the permittee. Monitoring results shall not be submitted on the DMR. Data shall be submitted with the next submission of the NY-2A form.
9. Action Levels: If the action level is exceeded, the additional monitoring requirement is triggered, and the permittee shall undertake a short-term, high-intensity, monitoring program for the exceeded parameter. Samples identical to those required for routine monitoring purposes shall be taken on each of at least three consecutive days and analyzed. Results shall be expressed in both mass and concentration. If levels higher than the action levels are confirmed, the permittee shall evaluate the treatment system operation and identify and employ actions to reduce concentrations present in the discharge. The permit may also be reopened by the Department for consideration of revised action levels or effluent limits. Action level monitoring results and the effectiveness of the actions taken shall be summarized and submitted with the monthly operating report [or DMR] data.
10. This is a Compliance Level. The calculated WQBEL is 18 µg/L.
11. 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 (chronic dilution ratio) are 3.5:1 for summer and 6.1:1 for winter. Discharges which are disinfected using chlorine should be dechlorinated prior to WET testing or samples shall be taken immediately prior to the chlorination system.

Monitoring Period - WET testing shall be performed quarterly (calendar quarters) during calendar years ending in 0 and 5.

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 TUa 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 TUa for the Chronic prediction from the Acute data, and report a TUc 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 TUa, 48-hr LC50 for Acute tests and/or TUc, 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.

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STORMWATER POLLUTION PREVENTION REQUIREMENTS

NO EXPOSURE CERTIFICATION

The permittee submitted a Conditional Exclusion for No Exposure Form on 10/16/2020, certifying that all industrial activities and materials are completely sheltered from exposure to rain, snow, snowmelt, and/or stormwater runoff. The permittee must maintain a condition of no exposure for the exclusion to remain applicable. If conditions change resulting in the exposure of materials and activities to stormwater, the permittee must notify the Regional Water Engineer. The permittee must recertify a condition of no exposure every five years by completing the "No Exposure Certification Form" found on the NYSDEC website.

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MERCURY MINIMIZATION PROGRAM (MMP) - Type I

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, influent and other locations tributary to compliance points may 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 - Facilities with EEQ at or below 12 ng/L are eligible for the following:
 - 1) Reduced requirements, through a permittee-initiated permit modification
 - a) Conduct influent monitoring, sampling quarterly, in lieu of monitoring within the collection system, such as at *key locations*; and
 - b) Conduct effluent compliance sampling quarterly.
 - 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.

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 I (Continued)

- ii. Monitoring and Inventory/Inspections -
 - 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.
 - 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 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.
- c. **Status Report** - An annual status report must be completed 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

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

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:
- Changes at the facility, or within the collection system, increase the potential for mercury discharges;
 - Effluent discharges exceed the current permit limitation(s); or
 - 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>
For information about this permitted discharge contact:
Permittee Name: _____
Permittee Contact: _____
Permittee Phone: () - ### - #####
OR:
NYSDEC Division of Water Regional Office Address:
NYSDEC Division of Water Regional Phone: () - ### - #####

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

INDUSTRIAL PRETREATMENT PROGRAM IMPLEMENTATION REQUIREMENTS

- A. **DEFINITIONS:** Generally, terms used in this Section shall be defined as in the General Pretreatment Regulations (40 CFR Part 403). Specifically, the following definitions apply to terms used in this Section:
1. **Categorical Industrial User (CIU):** an industrial user of the POTW that is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N;
 2. **Local Limits:** General Prohibitions, specific prohibitions and specific limits as set forth in 40 CFR 403.5.
 3. **The Publicly Owned Treatment Works (POTW):** as defined by 40 CFR 403.3(q) and that discharges in accordance with this permit.
 4. **Program Submission(s):** requests for approval or modification of the POTW Pretreatment Program submitted in accordance with 40 CFR 403.11 or 403.18 and approved by USEPA on September 10, 1984.
 5. **Significant Industrial User (SIU):**
 - a) CIUs;
 - b) Except as provided in 40 CFR 403.3(v)(3), any other industrial user that discharges an average of 25,000 gallons per day or more of process wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater) to the POTW;
 - c) Except as provided in 40 CFR 403.3(v)(3), any other industrial user that contributes a process waste stream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant;
 - d) Any other industrial user that the permittee designates as having a reasonable potential for adversely affecting the POTW's operation or for violating a pretreatment standard or requirement.
 6. **Substances of Concern:** Substances identified by the New York State Department of Environmental Conservation Industrial Chemical Survey as substances of concern.
- B. **IMPLEMENTATION:** The permittee shall implement a POTW Pretreatment Program in accordance 40 CFR Part 403 and as set forth in the permittee's approved Program Submission(s). Modifications to this program shall be made in accordance with 40 CFR 403.18. Specific program requirements are as follows:
1. **Industrial Survey:** To maintain an updated inventory of industrial dischargers to the POTW the permittee shall:
 - a) Identify, locate and list all industrial users who might be subject to the industrial pretreatment program from the pretreatment program submission and any other necessary, appropriate and available sources. This identification and location list will be updated, at a minimum, every five years. As part of this update the permittee shall collect a current and complete New York State Industrial Chemical Survey form (or equivalent) from each SIU.
 - b) Identify the character and volume of pollutants contributed to the POTW by each industrial user identified in B.1.a above that is classified as a SIU.
 - c) Identify, locate and list, from the pretreatment program submission and any other necessary, appropriate and available sources, all SIUs of the POTW.
 2. **Control Mechanisms:** To provide adequate notice to and control of industrial users of the POTW the permittee shall:
 - a) Inform by certified letter, hand delivery courier, overnight mail, or other means which will provide written acknowledgment of delivery, all industrial users identified in B.1.a. above of applicable pretreatment standards and requirements including the requirement to comply with the local sewer use law, regulation or ordinance and any applicable requirements under section 204(b) and 405 of the Federal Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.

INDUSTRIAL PRETREATMENT PROGRAM IMPLEMENTATION REQUIREMENTS (continued)

- b) Control through permit or similar means the contribution to the POTW by each SIU to ensure compliance with applicable pretreatment standards and requirements. Permits shall contain limitations, sampling frequency and type, reporting and self-monitoring requirements as described below, requirements that limitations and conditions be complied with by established deadlines, an expiration date not later than five years from the date of permit issuance, a statement of applicable civil and criminal penalties and the requirement to comply with Local Limits and any other requirements in accordance with 40 CFR 403.8(f)(1).
3. Monitoring and Inspection: To provide adequate, ongoing characterization of non-domestic users of the POTW, the permittee shall:
- Receive and analyze self-monitoring reports and other notices. The permittee shall require all SIUs to submit self-monitoring reports at least every six months unless the permittee collects all such information required for the report, including flow data.
 - The permittee shall adequately inspect each SIU at a minimum frequency of once per year.
 - The permittee shall collect and analyze samples from each SIU for all priority pollutants that can reasonably be expected to be detectable at levels greater than the levels found in domestic sewage at a minimum frequency of once per year.
 - Require, through permits, each SIU to collect at least one 24 hour, flow proportioned composite (where feasible) effluent sample every six months and analyze each of those samples for all priority pollutants that can reasonably be expected to be detectable in that discharge at levels greater than the levels found in domestic sewage. The permittee may perform the aforementioned monitoring in lieu of the SIU except that the permittee must also perform the compliance monitoring described in 3.c.
4. Enforcement: To assure adequate, equitable enforcement of the industrial pretreatment program the permittee shall:
- Investigate instances of noncompliance with pretreatment standards and requirements, as indicated in self-monitoring reports and notices or indicated by analysis, inspection and surveillance activities. Sample taking and analysis and the collection of other information shall be performed with sufficient care to produce evidence admissible in enforcement proceedings or in judicial actions. Enforcement activities shall be conducted in accordance with the permittee's Enforcement Response Plan developed and approved in accordance with 40 CFR Part 403.
 - Enforce compliance with all national pretreatment standards and requirements in 40 CFR Parts 406 - 471.
 - Provide public notification of significant non-compliance as required by 40 CFR 403.8(f)(2)(viii).
 - Pursuant to 40 CFR 403.5(e), when either the Department or the USEPA determines any source contributes pollutants to the POTW in violation of Pretreatment Standards or Requirements the Department or the USEPA shall notify the permittee. Failure by the permittee to commence an appropriate investigation and subsequent enforcement action within 30 days of this notification may result in appropriate enforcement action against the source and permittee.
5. Recordkeeping: The permittee shall maintain and update, as necessary, records identifying the nature, character, and volume of pollutants contributed by SIUs. Records shall be maintained in accordance with 6 NYCRR 750-2.5(c).
6. Staffing: The permittee shall maintain minimum staffing positions committed to implementation of the Industrial Pretreatment Program in accordance with the approved pretreatment program.
- C. SLUDGE DISPOSAL PLAN. The permittee shall notify NYSDEC, and USEPA as long as USEPA remains the approval authority, 60 days prior to any major proposed change in the sludge disposal plan. NYSDEC may require additional pretreatment measures or controls to prevent or abate an interference incident relating to sludge use or disposal.

INDUSTRIAL PRETREATMENT PROGRAM IMPLEMENTATION REQUIREMENTS (continued)

- D. **REPORTING:** The permittee shall provide to the offices listed on the Monitoring, Reporting and Recording page of this permit and to the Chief-Water Compliance Branch, USEPA Region II, 290 Broadway, New York, NY 10007, a periodic report that briefly describes the permittee's program activities over the previous year. This report shall be submitted in accordance with the Schedule of Submittals to the above noted offices within 60 days of the end of the reporting period. The periodic report shall include:
1. **Industrial Survey:** Updated industrial survey information in accordance with 40 CFR 403.12(i)(1) (including any NYS Industrial Chemical Survey forms updated during the reporting period).
 2. **Implementation Status:** Status of Program Implementation, to include:
 - a) Any interference, upset or permit violations experienced at the POTW directly attributable to industrial users.
 - b) Listing of SIUs issued permits.
 - c) Listing of SIUs inspected and/or monitored during the previous reporting period and summary of results.
 - d) Listing of SIUs notified of promulgated pretreatment standards or applicable local standards who are on compliance schedules. The listing should include for each facility the final date of compliance.
 - e) Summary of POTW monitoring results not already submitted on Discharge Monitoring Reports and toxic loadings from SIU's organized by parameter.
 - f) A summary of additions or deletions to the list of SIUs, with a brief explanation for each deletion.
 3. **Enforcement Status:** Status of enforcement activities to include:
 - a) Listing of SIUs in significant non-compliance (as defined by 40 CFR 403.8(f)(2)(viii) with federal or local pretreatment standards at end of the reporting period.
 - b) Summary of enforcement activities taken against non-complying SIUs. The permittee shall provide a copy of the public notice of significant violators as specified in 40 CFR 403.8(f)(2)(viii).
- E. **ADDITIONAL PRETREATMENT CONDITIONS:**
1. **Notification of Material Change:** Facility shall notify the NYSDEC prior to the addition of any SIUs or CIUs which may materially change the nature of the discharge from the POTW or increase the discharge of one or more substances authorized in this permit or discharge a substance not currently authorized in this permit (6 NYCRR Part 750-2.9(a)(1)). The noticed act is prohibited until the Department determines whether a permit modification is necessary pursuant to 750-2.9(a)(2).

SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

Outfall(s)	Compliance Action	Compliance Date ⁵
001	<u>AMMONIA SUMMER LIMIT</u> The ammonia summer limit monthly average limit of 1.9 mg/L will become effective EDP + 18 months. The interim limit is 2.2 mg/L and will remain effective until EDP + 18 months.	EDP + 18 months
001	<u>TOTAL PHOSPHORUS CONCENTRATION EFFLUENT LIMITATION</u> Total phosphorus annual concentration limit of 1.0 mg/L will become effective EDP + 18 months. The interim loading limit is monitor only. The interim limit will remain effective until EDP + 18 months.	EDP + 18 months
001	<u>TOTAL PHOSPHORUS LOADING EFFLUENT LIMITATION</u> Total phosphorus annual loading limit of 13,700 lbs/year will become effective 1/1/2025. The interim loading limit is 23,100 lbs/year. The interim limit will remain effective until 12/31/2024.	01/01/2025
001	<u>TOTAL NITROGEN (as N) LOADING EFFLUENT LIMITATION</u> Total nitrogen annual loading effluent limit of 219,000 lbs/year will become effective 1/1/2025. The interim loading limit is 256,000 lbs/year. The interim loading limit will remain effective until 12/12/2024.	01/01/2025
001	<u>Nitrite (NO₂) limit - Daily Maximum</u> concentration limit of 0.07 mg/L will become effective EDP + 18 months. The interim limit is monitor only. The interim limit will remain effective until EDP + 18 months.	EDP + 18 Months
001	<u>TOTAL RESIDUAL CHLORINE LIMIT</u> The total residual chlorine limit of 30 µg/L will become effective EDP + 24 months. The interim limit is 100 µg/L and will remain effective until EDP + 24 months.	EDP + 24 months
001	<u>Free Cyanide limit: Daily Maximum</u> concentration limit of 19 ug/L will become effective EDP + 18 months. The interim limit is monitor only. The interim limit will remain effective until EDP + 18 months	EDP + 18 Months
Unless noted otherwise, the above actions are one-time requirements.		

Schedule continued below

⁵ 6 NYCRR 750-1.14 (a)

SCHEDULE OF COMPLIANCE (Continued)

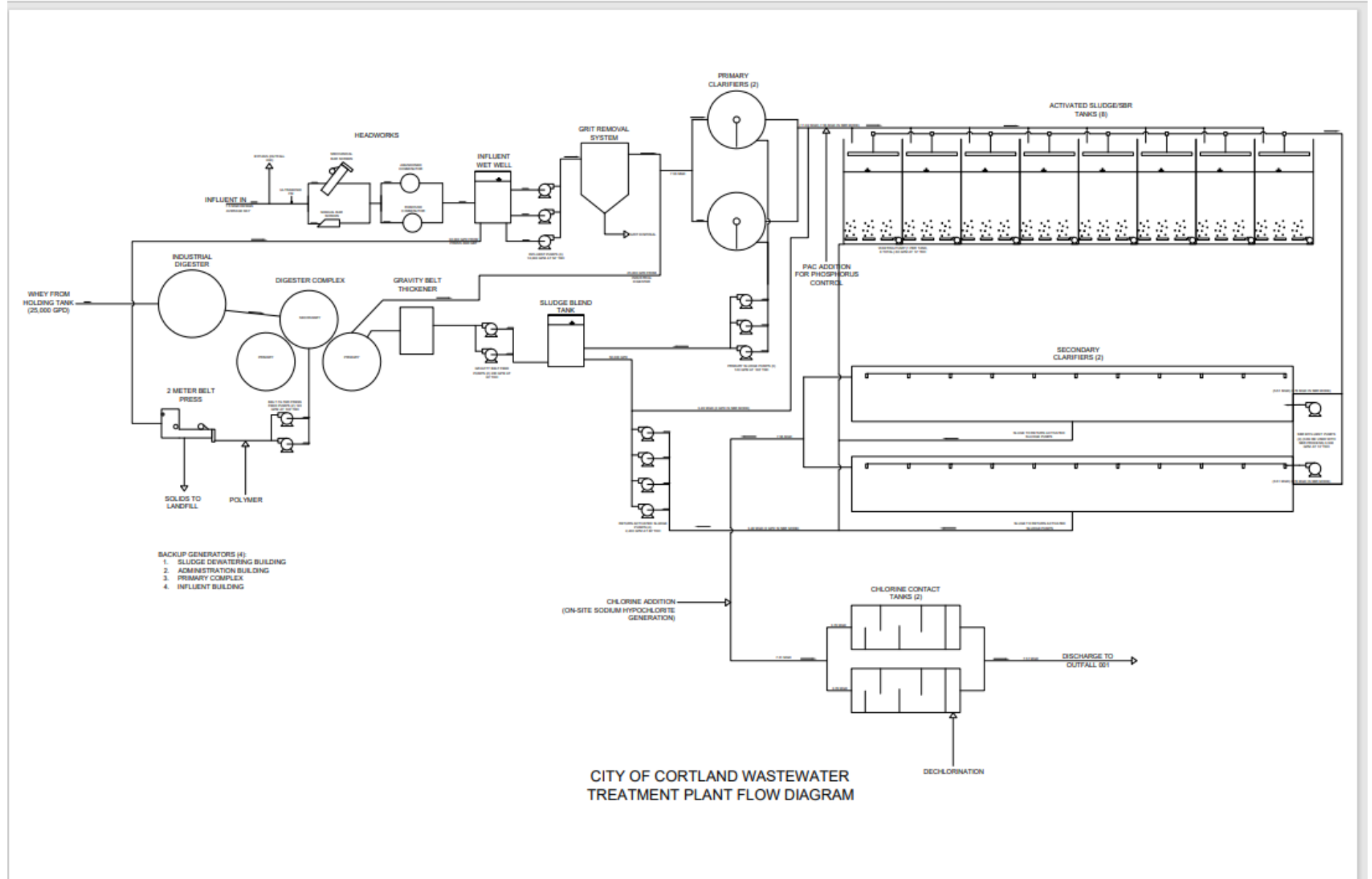
OUTFALL	PARAMETER	INTERIM EFFLUENT LIMIT					MONITORING REQUIREMENTS				Notes
		Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.		
001	Ammonia (as N) June 1 – Oct. 31	Monthly Average	2.2	mg/L			2/Week	24-hr. Comp.		X	1
001	Total Phosphorus	Monthly Average	Monitor	mg/L	Monitor	lbs/yr	1/Month	Calculated		X	1
001	Total Phosphorus	12-Month Total	Monitor	mg/L	23,100	lbs/yr	1/Month	Calculated		X	2,3
001	Total Nitrogen	12-Month Total	Monitor	mg/L	256,000	lbs/yr	1/Month	Calculated		X	2,3
001	Total Residual Chlorine	Daily Maximum	100	µg/L			3/day	Grab		X	4
001	Free Cyanide	Daily Maximum	Monitor	ug/L			1/Month	Grab		X	1
Notes:	1. Interim limits expire EDP + 18 months. 2. See effluent limit table footnote for this calculation. 3. Interim limits expire 01/01/2025. 4. Interim limits expire EDP + 24 months.										

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

Effluent is monitored after chlorine contact tank (outfall 001)



GENERAL REQUIREMENTS

A. The regulations in 6 NYCRR Part 750 are hereby incorporated by reference and the conditions are enforceable requirements under this permit. The permittee shall comply with all requirements set forth in this permit and with all the applicable requirements of 6 NYCRR Part 750 incorporated into this permit by reference, including but not limited to the regulations in paragraphs B through 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/103774.html>. **Hardcopy paper DMRs will only be received at the address listed below, directed to the Bureau of Water Compliance, if a waiver from the electronic submittal requirements has been granted by DEC to the facility.**

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 RWE and Bureau of Water Permits at the following addresses:

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

Department of Environmental Conservation
 Regional Water Engineer, Region 07
 615 Erie Boulevard West, Syracuse, New York, 13204-2400 Phone: (315) 426-7500

- 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 001	Required Action	Due Date
	<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.	Attached with December DMR of every year
	<u>BIENNIAL POLLUTANT SCAN</u> The permittee shall implement an ongoing monitoring program and perform effluent sampling every two years as specified in Footnote 3.	Retain and submit with next NY-2A Application

SCHEDULE OF ADDITIONAL SUBMITTALS		
Outfall 001	Required Action	Due Date
	<p><u>WHOLE EFFLUENT TOXICITY (WET) TESTING</u> WET testing shall be performed on a Chronic testing, but report both the acute and chronic results basis, enter monitoring period to match WET footnote. 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>
	<p><u>STORMWATER NO EXPOSURE CERTIFICATION</u> Permittee must recertify every five years a condition of no exposure to stormwater in order to continue to qualify for the no exposure exclusion. The No Exposure Certification Form can be found on the NYSDEC website.</p>	<p>10/01/2025, and every 5 years thereafter</p>
	<p><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.</p>	<p>Maintained Onsite EDP + 12 months, annually thereafter</p>
	<p><u>PRETREATMENT PROGRAM</u> Submit a report that briefly describes the permittee's program activities over the previous year. The report shall follow the guidelines contained in this permit and be submitted to the Regional Water Engineer and the Bureau of Water permits as well as the USEPA Region II office.</p>	<p>Within 60 days following the end of each reporting period</p>
	<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 or EDPPM + 14 months</p> <p>Within 90 days of DEC written notification</p>

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.

DRAFT

SPDES Permit Fact Sheet

City of Cortland

LeRoy R. Summerson WWTF

NY0027561

DRAFT



Department of
Environmental
Conservation

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Summary of Permit Changes

A State Pollutant Discharge Elimination System (SPDES) permit has been drafted for the LeRoy R. Summerson WWTF. The changes to the permit are summarized below and included in the permit:

Added:

- Summer ammonia concentration limit of 1.9 mg/L
- Monitoring requirements for chlorinated and unchlorinated phenols
- Concentration monitoring for total cadmium, free cyanide, total phenolics
- 12 month rolling average effluent limit of 12.0 ng/L for Mercury and updated requirements for Mercury Minimization Plan (MMP)
- A biennial pollutant scan requirement
- Acute WET action levels
- Nitrite daily maximum limit, 70 ug/L
- A short-term high intensity monitoring for free cyanide has been added under a compliance schedule.
- A monthly monitoring and a WQBEL for free cyanide.
- Dissolved Oxygen monitoring for information purposes.
- A monitoring requirement for emerging pollutants has been added in the draft permit (see more information on page 14 of this factsheet.)

Updated:

- Chesapeake Bay TMDL limitations and incorporated of existing requirements for total nitrogen, TKN, nitrate, nitrite, and total phosphorus to the permit limits table
- WET Chronic action levels
- Total Residual Chlorine (TRC) limit
- CBOD₅ 7-day average limit
- Receiving water's classification has been reviewed and corrected to Class B. The previous permit classified discharge location of receiving water as Class, B(T) in error.

Removed:

- Ammonia load limit
- Summer UOD limit
- Arsenic, Chromium, Diethyl phthalate, Nickel, Selenium, Xylene and Zinc action levels
- Previous format of Chesapeake Bay TMDL Implementation tables
- Stormwater Pollution Prevention Plan requirement since the permittee was able to certify to no exposure
- Bypass of Outfall 002 since SPDES rules and regulations do not permit untreated sanitary waste discharge to the State's water
- Loading limit for cyanide amenable to chlorine has been removed.

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

Administrative History

- 9/1/2014 The last full technical review was performed and the SPDES permit became effective with a new five-year term and expiration date of 9/30/2014. The previous permit, along with all subsequent modifications, has formed the basis of this permit.
- 10/1/2014: The permit was administratively renewed in 2014. The current permit administrative renewal was effective until 9/30/2019.
- 4/5/2019 The current permit was extended pursuant to SAPA¹.
- 7/5/2020 DEC issued a Request for Information (RFI) to modify and renew the SPDES permit due to the facility's EBPS score². At the time of the RFI, the facility had an EBPS score of 265.
- 10/16/2020 The City of Cortland submitted a timely and sufficient NY-2A permit application.

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

Facility Information

This is a publicly owned treatment works that receives flow from domestic and industrial users, with effluent consisting of treated sanitary and industrial wastewater. The collection system consists of separate sewers. The facility accepts flow from significant industrial users (SIUs). The treatment plant was constructed in 1940 to provide primary treatment. The facility was upgraded in 1976 to provide secondary treatment with a design flow of 10.0 MGD. The latest major upgrade to provide secondary treatment was in 1995 with a design flow of 9.0 MGD. Additional nutrient and solids handling upgrades were completed in 2017.

The current treatment plant consists of the following treatment processes:

- Preliminary Treatment: Mechanical Bar Screen and Grit Removal chamber
- Primary Treatment: Primary clarifiers
- Secondary Treatment: Aeration Basins and Secondary clarifiers
- Disinfection: Chlorine Contact basins and dechlorination prior to discharge to the river

Sludge is processed by belt filter dewatering press and dewatered sludge is disposed of at the County Landfill.

The primary outfall is 001 which discharges at the bank of the Tioughnioga River.

The facility is planning the following upgrades/improvements:

- Supply and installation of new bubble diffusers in aeration tanks. This is currently under conceptual design. It is estimated that this work will occur in 2023/2024.
- Supply and installation of blowers for aeration system. This is under conceptual design. If required, it is estimated that this work will occur in 2023/2024.

¹ State Administrative Procedures Act Section 401(2) and 6 NYCRR 621.11(l)

² Pursuant to 6 NYCRR 750-1.18 and NYS Environmental Benefit Permit Strategy (EBPS)

Permittee: City of Cortland
 Facility: LeRoy R. Summerson WWTF
 SPDES Number: NY0027561
 USEPA Major/Class 05 Municipal

Date: November 8, 2023 v.1.13
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 Water Quality Reviewer: Rashid Ahmed
 Full Technical Review

The facility accepts wastewater from the following municipalities:

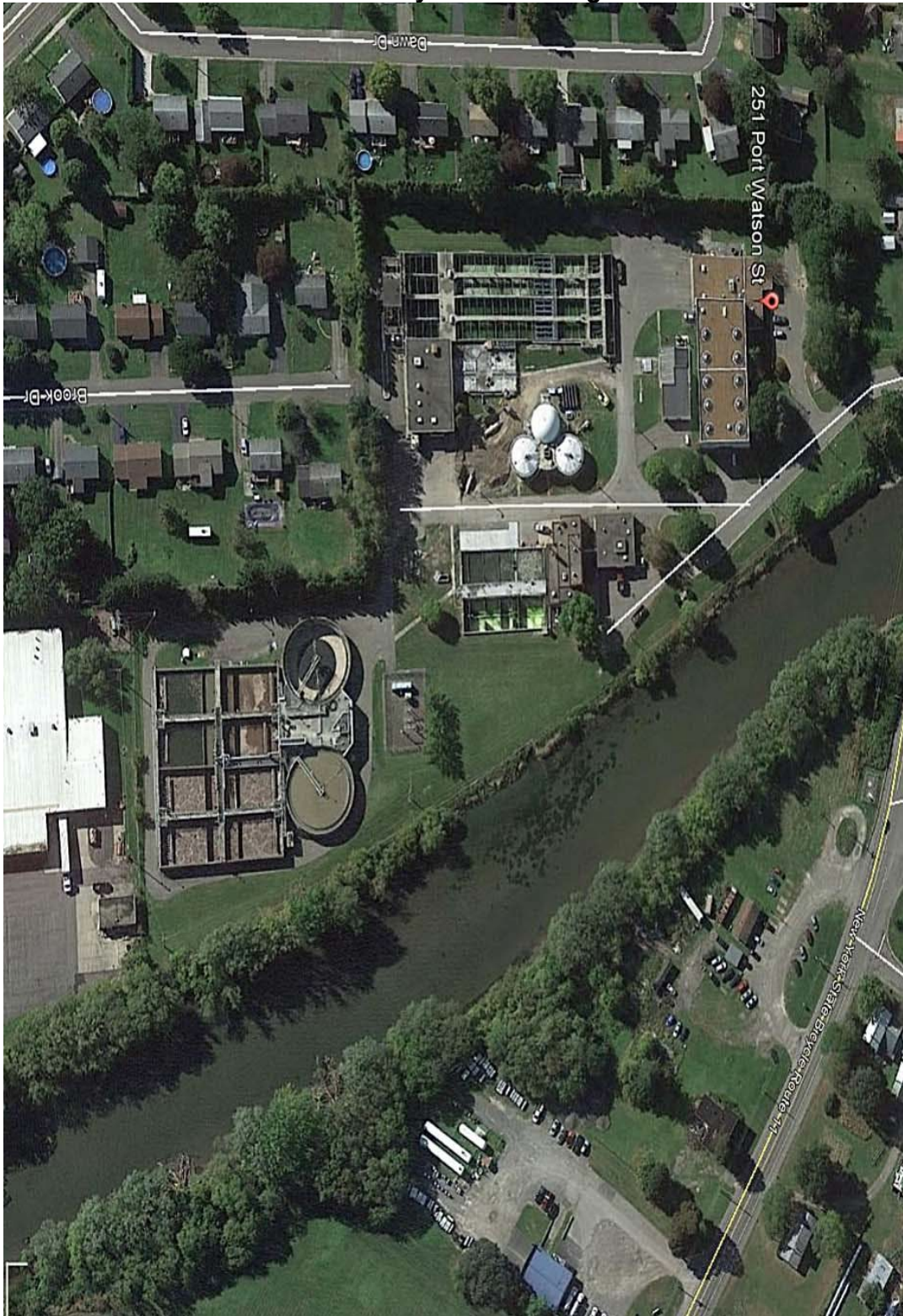
Municipality	POSS # or SPDES #	Collection System
City of Cortland	NY0027561	Separate
City of Cortlandville	NYS700008	Separate
City of Homer	NYS700012	Separate
City of McGraw	NYS700014	Separate

The facility accepts wastewater from the following significant industrial users (SIUs):

Significant Industrial User (SIU)	SIC Code	Categorical Reference (if applicable to 40 CFR)
Albany International Inc., Homer, NY	2821	
Ames Linen, Cortland, NY	7213	
Cortlandville Yoghurt/Byrne Hollow Farms, Cortland, NY	2026	
Precision Eforming	3471	
Kik Custom Products	2841	
Pall Trinity Micro	3569	
Cortland County Municipal landfill	4953	

The permittee also has known Sanitary Sewer Overflow (SSO) discharges. Type I SSOs are classified as permanent emergency overflow structures which are intended only for emergency discharges and are typically located at pump stations or the headworks of the treatment plant. Discharge from these outfalls is prohibited, with limited exceptions; therefore, these outfalls are not included in the permit. Each discharge event is evaluated against emergency discharge criteria and must be reported in accordance with the Sewage Pollution Right to Know Act (SPRTK).

Aerial view of the treatment facility and receiving water:



Enforcement History

Currently, the facility is not operating under an Order on Consent. 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 3/31/2016 to 4/30/2021.

Additional Site-Specific Concerns

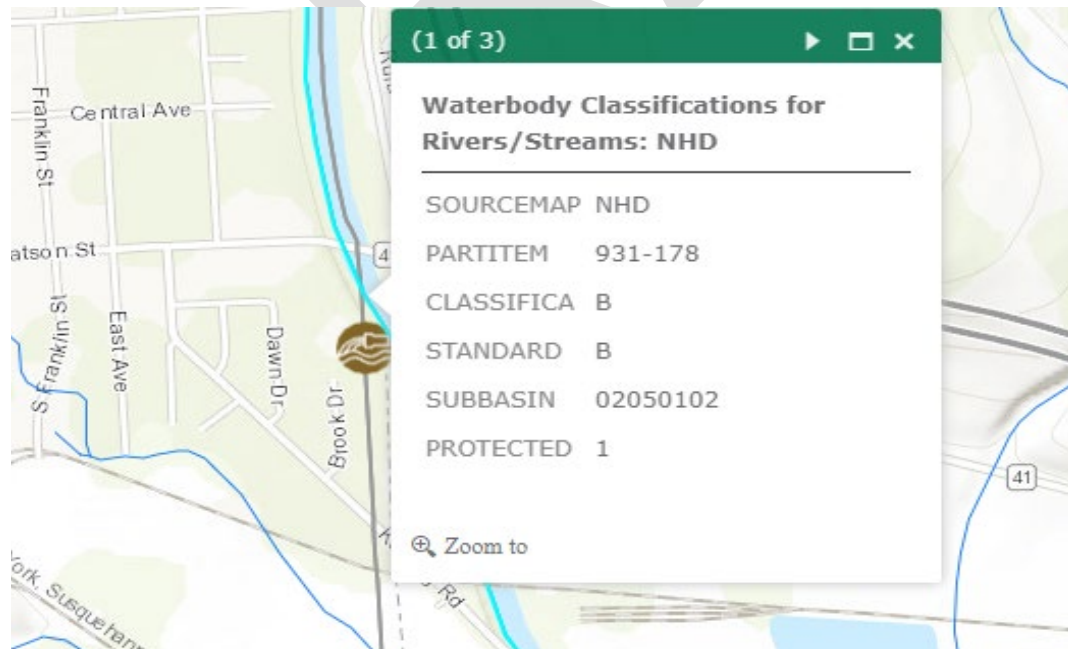
The facility is located in a sole source aquifer. As required by ECL 17-0828, the permittee submitted a completed *Application Supplement B: Discharges within Sole Source Aquifers* form identifying the following water purveyors within a three-mile radius of the facility: City of Cortland Water Department.

Receiving Water Information

The facility discharges via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	4952	Treated Municipal and Industrial Wastewater	Tioughnioga River, Class B

Reach Description: There are no significant upstream or downstream facilities within proximity of Leroy R Summerson WWTF. A minor SPDES facility, Cortland Asphalt Product (NY0244805) is located about 2.2 miles upstream of this facility. Another minor facility, Intertek Testing Service (NY0108995) is about 0.3 miles downstream of this facility. Neither Cortland Asphalt Product nor Intertek Testing Service discharge oxygen demanding substances



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

Impaired Waterbody Information

The (PWL No. 0602-0002) is not listed on the 2018 [New York State Section 303\(d\) List](#) of Impaired/Total Maximum Daily Load (TMDL) waters due to Nutrients, Phosphorus and Nitrogen from Municipal and Industrial wastewater. 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 TMDL³, as discussed below.

Chesapeake Bay TMDL Watershed Information

The City of Cortland 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 City of Cortland 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.

Interim Limits Effective through 12/31/2024

Total Phosphorus (as P) 12-month Load (TP 12-ML): 23,100 lb/year

Total Nitrogen (as N) 12-month Load (TN 12-ML): 256,000 lb/year

Final Limits Effective 1/1/2025

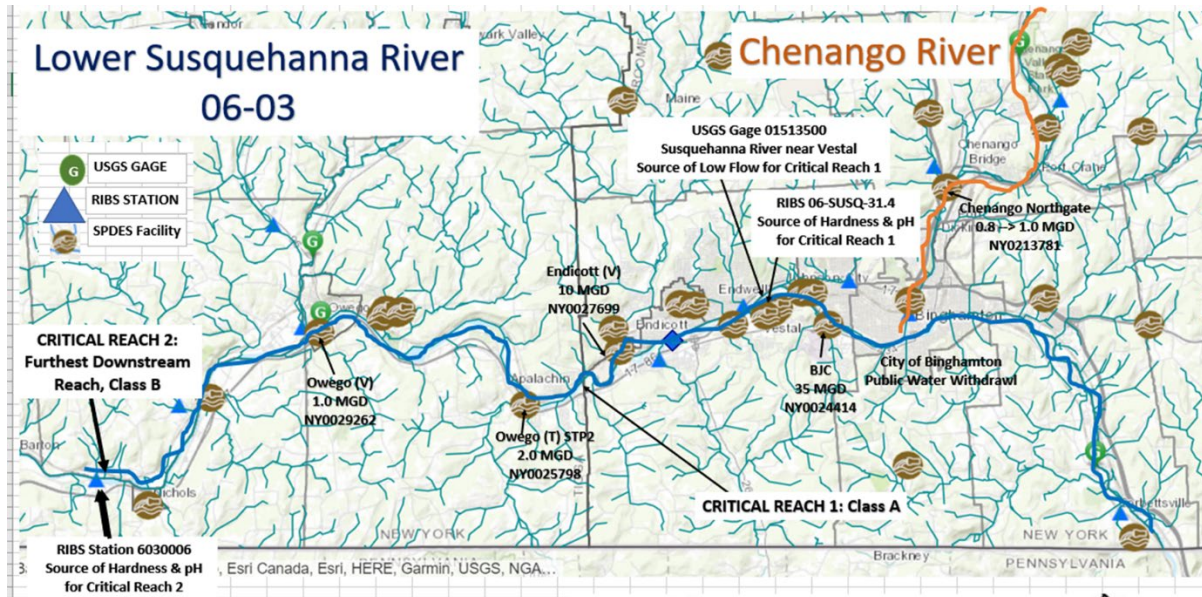
Total Phosphorus (as P) 12-month Load (TP 12-ML): 13,700 lb/year

Total Nitrogen (as N) 12-month Load (TN 12-ML): 219,000 lb/year

Watershed Maximum Daily Load (WMDL)

The Department conducted a watershed analysis for the Susquehanna Watershed in 2022. The critical reaches for the Susquehanna Watershed are the headwaters downstream to the Class A portion that ends at the Town of Endicott and from downstream of Endicott to the end of the Susquehanna River in NY at near the Town of Nichols (Class B). The WMDL analysis is used in addition to the Department's individual facility review to ensure that the cumulative impacts from various point source discharges do not exceed the waste assimilative capacity (WAC) of the critical reaches. The following pollutants were found to be water quality limiting in the Susquehanna and a watershed maximum daily load is being added or maintained: bis(2-ethylhexyl) phthalate, iron, cyanide, thallium, phenolic compounds, silver, lead, and copper.

³ See <https://www.dec.ny.gov/lands/33279.html>



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

Critical Receiving Water Data & Mixing Zone

The low flow condition for the Tioughnioga River was obtained from USGS gage station 01509000, located at Cortland, New York. The 1Q10, 7Q10 and 30Q10 flows at the gage were found from the USGS SW Toolbox software and an analysis of data from 1938 to 2020.

Summer critical flow data:

RESULTS: USGS 01509000 TIOUGHNIOGA RIVER AT CORTLAND NY

File Edit View Help

All available data from Jun 1, 1937 through Oct 31, 2020 are included in analysis Display Options: 01509000

Season defined as Jun 1 - Oct 31. Biological flow is calculated for full climatic year starting at Jun 1.

Seasonal Calculation?	Yes		
Season Or Year Start	1-Jun		
Season Or Year End	31-Oct		
Years Included in Calculations	1938~2019		
Start	1938		
End	2020		
Flow Statistic	Flow Value	Percentile	x-day avg. Excur. per 3 yr.
1B3	28.963	0.25%	0.92593
4B3	39.952	1.39%	0.92593
30B3	58.99	5.67%	1
Flow Statistic	Flow Value	Percentile	1-day Excur. per 3 yr.
1Q10	32.553	0.54%	0.33333
7Q10	35.471	0.88%	0.40741
30Q10	41.409	1.64%	0.74074
Harmonic Mean	182	32.04%	N/A
Harmonic Mean, Adjusted	182	32.04%	N/A

Double-click on biological flow value (xBy column) to view excursion analysis result for a gage

Winter critical flow data:

RESULTS: USGS 01509000 TIOUGHNIOGA RIVER AT CORTLAND NY

File Edit View Help

All available data from Nov 1, 1938 through May 31, 2020 are included in analysis. Display Options: 01509000

Season defined as Nov 1 - May 31. Biological flow is calculated for full climatic year starting at Nov 1.

Seasonal Calculation?	Yes		
Season Or Year Start	1-Nov		
Season Or Year End	31-May		
Years Included in Calculations	1938~2020		
Start	1938		
End	2020		
Flow Statistic	Flow Value	Percentile	x-day avg. Excur. per 3 yr.
1B3	28.961	0.25%	0.91463
4B3	39.889	1.38%	0.91463
30B3	58.836	5.59%	0.9878
Flow Statistic	Flow Value	Percentile	1-day Excur. per 3 yr.
1Q10	57.805	5.22%	1.9756
7Q10	72.055	9.63%	2.8902
30Q10	113.7	19.79%	5.122
Harmonic Mean	183.51	31.97%	N/A
Harmonic Mean, Adjusted	183.51	31.97%	N/A

Double-click on biological flow value (xBy column) to view excursion analysis result for a gage

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.	Season	Acute Dilution Ratio A(A)	Chronic Dilution Ratio A(C)	Human, Aesthetic, Wildlife Dilution Ratio (HEW)	Basis
001	Summer	3.3	3.5	4.0	TOGS 1.3.1
	Winter	5.1	6.1	9.0	

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](#)

- 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.
- Treatment plants which equal or exceed a discharge of 1.0 MGD.

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 added to the permit. Given the dilution available and location outside of the Great Lakes basin, the permit requires chronic only WET testing. WET testing action levels for summer are 1.0 TUa and 3.5 TUc. WET action levels for winter are 1.5 TUa and 6.1 TUc respectively. These action levels have been included in the permit for each species. The acute action levels for each species represent the acute dilution ratio times a factor of 0.3. 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
02/20	>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
05/20	>100% (FI)	<0.3 (FI)	0.3	97.5% (F)	Pass	<0.8	No**	>100% (FI)/>100% (FI)	<1.0 (FI)/<1.0 (FI)	4.0	Pass/Pass	<2.6	No
09/20	>100% (FI)	<0.3 (FI)	0.3	97.5% (F)	Pass	<0.8	No**	>100% (FI)/>100% (FI)	<1.0 (FI)/<1.0 (FI)	2.6	Pass/Pass	<2.6	No
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

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+1) x 0.3 TUa] representing the maximum allowable effluent TUa at the edge of the acute mixing zone using the seven-day once-in-ten year low flow (7Q10) 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 \leq 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.

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 (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 reproduction or growth 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+1) x 1.0 TUc] representing the maximum allowable effluent TUc at the edge of the chronic mixing zone using the seven-day once-in-ten year low flow (7Q10) 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 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.

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 (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)⁴ 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 being continued from the previous permit.

Stormwater Pollution Prevention Requirements

The facility is a publicly owned treatment works ≥ 1 MGD that requires SPDES permit coverage under 40 CFR 122.26 (b)(14)(ix).

On 10/16/2020, the permittee submitted a Conditional Exclusion for No Exposure Form, certifying that all industrial activities and materials are completely sheltered from exposure. This condition must be maintained for the exclusion to remain applicable. The schedule of submittals also includes a due date for re-certification every five years as required by 40 CFR 122.26(g)(iii). This requirement is updated from the previous permit.

Mercury⁵

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 05 municipal facility that is located outside the Great Lakes basin area. The design flow of the facility is more than 1 MGD; therefore, the permit includes requirements for the implementation of MMP Type I.

The permit includes a daily maximum total mercury effluent limitation of 50 ng/L. The facility has ≥ 10 effluent mercury data points and the existing effluent quality (EEQ) of 6.8 ng/L was calculated from the lognormal 95th percentile of 20 mercury effluent samples collected from March 2016 to March 2021. Since the facility is located outside the Great Lakes basin, a 12-month rolling average effluent limit of 12.0 ng/L is required in accordance with TOGS 1.3.10. A mercury minimization program consisting of the following is required:

- Additional monitoring
- Control strategy for implementation of the MMP
- Annual status report (maintained onsite)

⁴ As prescribed by 6 NYCRR Part 617

⁵ In accordance with DOW 1.3.10 Mercury – SPDES Permitting & Multiple Discharge Variance (MDV), December 30, 2020.

Emerging Contaminant Monitoring -

Emerging Contaminants, such as PFOA, PFOS, and 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 to evaluate the influent and effluent discharge levels of Per- and Polyfluoroalkyl Substances (PFAS) and 1,4-Dioxane. This monitoring program is consistent with PFAS 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.

Biennial Pollutant Scan

Three effluent samples for applicable parameters must be submitted with an NY-2A Application⁶. The permit includes a requirement to perform biennial sampling (once every two years) of the WWTP effluent for the parameters in the NY-2A Application, Tables A – D. This requirement ensures the data is representative of effluent conditions over the permit term and will be available for the next application submittal and permit review. This requirement is new to the permit.

Industrial Pretreatment Program

The permittee is required to continue implementation of a USEPA-approved pretreatment program in accordance with 40 CFR Part 403 and TOGS 1.3.3. The program specifies continued implementation of an industrial user compliance program, submission of user information, modification of local sewer use law (if necessary), and periodic reporting.

Schedule(s) of Compliance

A Schedule of Compliance is being included⁷ for the following items ([Appendix Link](#)):

- Compliance period for attainment of final effluent limits for Summer Ammonia, Total Residual Chlorine, Total Phosphorus and Total Nitrogen.
- A modification to the treatment facility or operations is needed and will take a significant amount of time to properly plan, design, fund, and construct.
- Submittal of an approvable engineering report (preliminary report) summarizing the facility upgrades needed to comply with the final effluent limitations for Total Residual Chlorine, Total Nitrogen and Total Phosphorus. The report must meet the requirements of the EFC/DEC Engineering Report Outline.
- Submittal of approvable engineering design documents, including a basis of design report with the details of the upgrades needed to comply with the final effluent limitations.

⁶ Pursuant to 40 CFR 122.21(j)(4)(vi).

⁷ Pursuant to 6 NYCRR 750-1.14

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Water Quality Reviewer: Rashid Ahmed
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Schedule(s) of Additional Submittals

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

- WTC Annual Report
- Biennial Pollutant Scan
- Whole Effluent Toxicity (WET) Testing
- Public Notification
- Stormwater No Exposure Certification
- Mercury Minimization Plan – maintained onsite
- Pretreatment Program

DRAFT

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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
Summer														
001	42° 35' 48" N	76° 9' 29" W	Tioughnioga River	B	SR 44-14 (Item 931 - 178) PWL: 0620-0002	06 / 02	139	21.07	22.94	26.69	9.0	3.3	3.5	4.0
Winter														
001	42° 35' 48" N	76° 9' 29" W	Tioughnioga River	B	SR 44-14 PWL: 0620-0002	06 / 02	139	36.84	46.53	73.03	9.0	5.1	6.2	9.1

POLLUTANT SUMMARY TABLE

Outfall 001

Outfall #	001														
	Description of Wastewater: Treated sanitary wastewater														
	Type of Treatment: Bar Screen, Grit Removal Chamber, Primary Clarifiers, Aeration Basins and Secondary Clarifiers														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ⁸	# 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 03/31/2016 to 04/31/2021 was obtained from Discharge Monitoring Reports provided by the EPA. 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	9.0	5.5 Actual Average	48	9.0	Design Flow	Narrative: No alterations that will impair the waters for their best usages.				703.2	-	TBEL	
	Consistent with TOGS 1.3.3, a monthly average flow limitation equal to the average daily design capacity of the treatment plant is specified.														
pH	SU	Minimum	6.0	6.48	48	6.0	TOGS 1.3.3	8.87 ⁹	-	6.5 – 8.5	Range	6.5 - 8.5	703.3	-	TBEL
		Maximum	9.0	8.07	48	9.0		Given the available dilution an effluent limitation equal to the TBEL is reasonably protective of the WQS.							
Temperature	°C	Daily Max	Monitor	21.4	17,520	None	-	NA	Narrative (Non-Trout): The water temperature at the surface of a stream shall not be raised to more than 90F at any point and... shall not be raised or lowered to more than 5F over the temperature that existed before the addition			704.2	-	Monitor	

⁸ 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)

⁹ Ambient pH obtained from RIBS data

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Outfall #	Description of Wastewater: Treated sanitary wastewater															
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality ⁸	# of Data Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL			
An action level of 70 °F has been added to the permit. See the Temperature Requirements for Municipal Discharges to Trout Streams section of the factsheet for a full discussion. This requirement is new.																
Dissolved Oxygen (DO) SUMMER 6/1 – 10/31	mg/L	Daily Min	None	None	No data available	-	-	NA	5.6 Critical Point	(Non-Trout) 4.0 mg/L	Narrative	No reasonable potential	703.3	-	Monitor	
	<p>Reach Description: The model included one single reach that starts from the discharge point (Outfall 001) of the Village of LeRoy WWTP to 4.0 miles downstream of the Tioughnioga River. The downstream DO concentration was modeled using the Streeter-Phelps equations and the following assumptions:</p> <p>Effluent DO = 2.0 mg/L (assumed value consistent with TOGS 1.3.1D), and Effluent NOD = 16 mg/L (calculated from proposed new ammonia (as N) limit of 1.9 mg/L that is necessary as reasonable potential analysis)</p> <p>Model indicated that a 7-day average effluent limitation of 30 mg/L is necessary for CBOD₅ to maintain the standard oxygen level of receiving water. The 7-day CBOD₅ limit will be reduced to 30 mg/L. In addition, since a 7-day CBOD₅ limit of 30 mg/L and a monthly average ammonia limit of 1.9 mg/L as N can sufficiently protect receiving water's DO standard, an UOD limitation is not necessary, so the current permit UOD limit has been removed. The average monthly limit for CBOD₅ of 25 mg/L has been carried over to the new permit which is a secondary treatment limit.</p>															
Dissolved Oxygen (DO) WINTER 11/1 – 5/31	mg/L	Daily avg.	None	None	3.25	-	-	NA	5.29 Critical Point	(Non-Trout) 4.0 mg/L	Narrative	No reasonable potential	703.3	-	Monitor	
	<p>Reach Description: The model included one single reach that starts from the discharge point (Outfall 001) of the Village of LeRoy WWTP to 4.0 miles downstream of the Tioughnioga River. The downstream DO concentration was modeled using the Streeter-Phelps equations and the following assumptions:</p> <p>Effluent DO = 2.0 mg/L (assumed value consistent with TOGS 1.3.1D), Effluent CBOD₅ = 40 mg/L (permit limit), and Effluent NOD = 51 mg/L (Calculated from the current ammonia loading limit of 635 lbs/day).</p> <p>The model showed that DO standards are maintained and consequently WQBELs for DO, UOD, and CBOD₅ are unnecessary. The TBELs for CBOD₅ and an ammonia limit of 7.0 mg/l (as N) are protective of water quality.</p>															
5-day Carbonaceous Biochemical Oxygen Demand (CBOD ₅) SUMMER 6/1 – 10/31	mg/L	Monthly Avg	25	7.22	48	25	TOGS 1.3.3	NA	See Dissolved Oxygen	703.3	-	-	-	-	TBEL	
		7 Day Avg	40	8.80	48	40	TOGS 1.3.3								30	WQBEL
	lbs/d	Monthly Avg	1876	221	48	1900	TOGS 1.3.3								-	TBEL
		7 Day Avg	3003	226	48	3000	TOGS 1.3.3								2300	WQBEL
	% Rem	Minimum	85	96	48	85	TOGS 1.3.3								-	

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 Water Quality Reviewer: Rashid Ahmed
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Outfall #	Description of Wastewater: Treated sanitary wastewater														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ⁸	# of Data Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Consistent with TOGS 1.3.3 for POTWs, 30-day average CBOD limit reflects the secondary treatment standards. The 7-day CBOD ₅ limit has been reduced to 30 mg/L, which a WQBEL. See justification under "Dissolved Oxygen."															
5-day Carbonaceous Biochemical Oxygen Demand (CBOD ₅) WINTER 11/1 – 5/31	mg/L	Monthly Avg	25	7.22	48	25	TOGS 1.3.3	NA	See Dissolved Oxygen	-	703.3	-	TBELs		
		7 Day Avg	40	8.80	48	40	TOGS 1.3.3			No reasonable potential					
	lbs/d	Monthly Avg	2252	221	48	1900	TOGS 1.3.3			-					
		7 Day Avg	3378	226	48	3000	TOGS 1.3.3			-					
	% Rem	Minimum	85	96	48	85	TOGS 1.3.3			-					
Consistent with TOGS 1.3.3 for POTWs, TBELs reflects secondary treatment standard. See justification under "Dissolved Oxygen."															
Ultimate Oxygen Demand (UOD) SUMMER 6/1 – 10/31	mg/L	Daily Max	40	32.27	48	-	-	-	See Dissolved Oxygen	-	-	-	No Limitation		
	lbs/d	Daily Max	3002	750	48	-	-			-					
The UOD summer loading limitation has been replaced with water quality based CBOD ₅ and ammonia (as N) concentration limitations. Both CBOD ₅ and ammonia limit are more stringent than their respective limitations in the previous permit. The new CBOD ₅ and ammonia limitations are sufficiently protective of the dissolved oxygen water quality standard.															
Total Suspended Solids (TSS)	mg/L	Monthly Avg	30	8.25	48	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	10	48	45	TOGS 1.3.3								
	lbs/d	Monthly Avg	2252	280	48	2200	TOGS 1.3.3								
		7 Day Avg	3378	553	48	3400	TOGS 1.3.3								
% Rem	Minimum	85	94.9	48	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 reasonably protective of water quality standards.															
Settleable Solids	mL/L	Daily Max	0.3	<0.1	48	0.3	TOGS 1.3.3	NA	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages	703.2	-	TBEL			

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Outfall #	001	Description of Wastewater: Treated sanitary wastewater													
		Type of Treatment: Bar Screen, Grit Removal Chamber, Primary Clarifiers, Aeration Basins and Secondary Clarifiers													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ⁸	# of Data Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Consistent with TOGS 1.3.3, the effluent limitation is equal to the TBEL of 0.3 mL/L for POTWs providing secondary treatment without filtration. Given that adequate dilution is available the TBEL is reasonably protective of WQS.															
Nitrogen, Ammonia (as N)	mg/L	Monthly Avg	None	2.4	48	-	-	-	0.87	0.5	H(W.S)	1.9	TOGS 1.1.1	-	WQBEL
	lbs/d	Monthly Avg	169	129	20	NA	-	-	-	-	-	-			
June 1 st – Oct. 31 st	<p>The WQS for Ammonia was determined from TOGS 1.1.1 from a summer pH of 8.1 and a temperature of 10°C. The pH and temperature of the receiving waterbody were calculated from the data at RIBS station 6022131. The projected instream concentration was calculated using the maximum reported effluent concentration of 0.74 mg/L and an ambient upstream concentration of 84 mg/L. A multiplier¹⁰ of 1.2 was applied to the maximum effluent concentration to account for the number of samples. In accordance with TOGS 1.3.1E, the HEW dilution ratio was applied to calculate the projected instream concentration. A comparison of the projected instream concentration to the WQS indicates is a reasonable potential to cause or contribute to a WQS violation. An ammonia concentration limitation, coupled with a flow limitation, is protective of water quality. The existing permit load of 205 lbs/d ammonia (as NH₃) is equivalent to 2.3 mg/L ammonia (as N) at the design flow of 9.0 MGD. The existing permit limit is greater than the calculated WQBEL of 1.9 mg/L and is being decreased to the WQBEL to protect water quality.</p> <p>Note: the current loading limit, 169 lbs/day (as N) is calculated from 205 lbs/day (as NH₃) in the permit.</p>														
Nitrogen, Ammonia (as N)	mg/L	Monthly Avg	None	1.1	28	None	-	.084	0.74	0.9	H(W.S)	No Reasonable potential	TOGS 1.1.1	-	Current Permit Limitation as Concentration
	lbs/d	Monthly Avg	522	149	28	NA	-	-	-	-	-	-			

¹⁰ As recommended from EPA's Technical Support Document, Chapter 3.3

Outfall #	Description of Wastewater: Treated sanitary wastewater														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ⁸	# 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		
	<p>The WQS for Ammonia was determined from TOGS 1.1.1 from a summer pH of 8.1 and a temperature of 10°C. The pH and temperature of the receiving waterbody were calculated from the data at RIBS station 6022131. The projected instream concentration was calculated using the maximum reported effluent concentration of 0.74 mg/L and an ambient upstream concentration of 84 mg/L. A multiplier¹¹ of 1.2 was applied to the maximum effluent concentration to account for the number of samples. In accordance with TOGS 1.3.1E, the HEW dilution ratio was applied to calculate the projected instream concentration. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation.</p> <p>The equivalent concentration (7.0 mg/L as N) of the current permit equivalent loading limit (522 lbs/day as N) is less than the calculated WQBEL; therefore, the limit is being updated to a concentration limit as N.</p> <p>Note: the current loading limit, 522 lbs/day (as N) is calculated from 635 lbs/day (as NH₃) in the permit.</p>														
Total Nitrogen as N	mg/L	Monthly Avg	Monitor	29.27	60	Monitor	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.	6 NYCRR 703.2	-	Monitor				
	lb/d	Monthly Avg	Monitor	1029	60	Monitor	WIP III			-	Monitor				
	lb/mon	Monthly Total	Monitor	30.870	60	Monitor	WIP III			-	Monitor				
	lb/yr	12 Month Rolling Load	256,000	250,025	48	219,000	WIP III			-	TMDL				
Consistent with the Phase III WIP the permit includes an annual loading limitation of 219,000 lbs/yr. Interim and final loading limits are provided in Chesapeake Bay TMDL discussion in this factsheet.															
Nitrate (NO ₃) as N	mg/L	Daily maximum	None	5.75	60	-	-			None					Monitor
	lbs/d	Monthly Average	None	89	60	-	-			None					
There is no Water quality standard for Nitrate, so no reasonable potential analysis was performed.															
Nitrite (NO ₂) as N	mg/L	Daily Maximum	-	3.12	-	-	-	-	-	0.020	A(C)	0.070	6 NYCRR 703.5	-	WQBEL
		Monthly Average	None	3.12	60	Monitor	WIP III	-	-					-	Monitor
	lbs/d	Monthly Average	None	40	60	Monitor	WIP III	-	-	-	-	-	-	-	Monitor

¹¹ As recommended from EPA's Technical Support Document, Chapter 3.3

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 Water Quality Reviewer: Rashid Ahmed
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Outfall #	Description of Wastewater: Treated sanitary wastewater															
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality ⁸	# of Data Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL			
Consistent with the Phase III WIP, sampling and reporting for nitrite will be continued in the permit and used to calculate the Monthly Average Total Nitrogen. Reasonable potential analysis showed that there is a potential for Nitrite to violate water quality standard of the receiving water standard quality, therefore a water quality based effluent limit of 0.70 mg/l has been added in the permit to protect receiving water quality.																
Total Phosphorus as P	mg/L	Monthly Avg	Monitor	3.33	60	Monitor	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						6 NYCRR 703.2	-	Monitor
	lb/d	Monthly Avg	Monitor	62	60	Monitor	WIP III							-	Monitor	
	lb/mo	Monthly Total	Monitor	1800	60	Monitor	WIP III							-	Monitor	
	lbs/yr	12 Month Rolling Load	23,100	21,600	60	13,700	WIP III							-	TMDL	
Consistent with the Phase III WIP the permit includes an annual loading limitation of 13,700 lbs/yr. Interim and final loading limits are provided in Chesapeake Bay TMDL discussion in this factsheet.																
Total Mercury	ng/L	Daily Max	50	6.8	20	50	ILCA	-	-	0.7	H(FC)	50	-	-	DOW 1.3.10	
	ng/L	12 MRA	-	-	-	-	EEQ	-	-	0.7	H(FC)	12	-	-	DOW 1.3.10	
See Mercury section of this factsheet . Existing effluent quality (EEQ) is calculated as the 95 th percentile of the log-normal data. Since current discharge level is below 12 ng/L and the facility is located outside the Great Lakes Basin, as per TOGS 1.3.10, the EEQ limit of 12 ng/L applies to permit as 12-month rolling average limit (MRA).																
Total Cadmium	µg/L	Daily Max		5	8	-	-	-	1.39	2.71	A (C)	19	-		Monitor	
	lbs/d	Daily max	0.74	0.005	48	0.74	Antibacksliding	-	-	-	-	1.4	-		TBEL	
The WQBEL was calculated from the chronic water quality standard and through applying the chronic dilution ratio. A negligible upstream ambient concentration was assumed. A metals translator of 1.117 was applied to convert between the total and dissolved form in accordance with EPA Document 823-B-96-007. The existing load limitation is more stringent than the load equivalent to the calculated WQBEL; therefore, the existing imitation is being maintained. Concentration monitoring is being added for future water quality assessment.																
Cyanide, Free	µg/L	Daily Max	None	20*	54	-	-	-	-	5.2	A(C)	19	703.5	-	WQBEL	
	lbs/d	Monthly Avg	4.5*	1.5*	48	-	-	-	-	-	-	-	-	-	Monitor	

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Outfall #	Description of Wastewater: Treated sanitary wastewater														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ⁸	# 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		
	*expressed as cyanide amenable to chlorine														
	The WQS for cyanide is expressed as free cyanide and total cyanide. Previously, there was not an approved analytical method for free cyanide so permit limitations were expressed as cyanide amendable to chlorine. There is now an approved free cyanide method in 40 CFR Part 136; therefore, the permit limitation is being changed to be expressed as free cyanide. The WQBEL was calculated from the chronic water quality standard and through applying the chronic dilution ratio. A negligible upstream ambient concentration was assumed. Since the permit includes a flow limitation, and the WQBEL expressed as a load (1.4 lb/d) is more stringent than the current load limitation, the WQBEL expressed as a concentration is protective of water quality. A concentration WQBEL for free cyanide is being added to the permit and the load will be monitored for future watershed analyses.														
Coliform, Fecal May 1 to October 31	#/100 ml	30d Geo Mean	200	33	30	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	73	30	400	TOGS 1.3.3	-							
Consistent with TOGS 1.3.3, effluent disinfection is required seasonally from May 1st - October 31st, due to the class of the receiving waterbody. Fecal coliform limits equal to the TBEL are specified.															
Total Residual Chlorine (TRC) May 1 to October 31	µg/L	Daily Max	100	100	30	2000	TOGS 1.3.3	-	22	5.0	A(C)	18	Part 703	30	Minimum Level
The calculated WQBEL for TRC is 18 µg/L which was calculated by multiplying the WQS of 5 µg/L by the chronic dilution ratio of 3.5; however, the minimum level (ML) for TRC is 30 µg/L, which is greater than the WQBEL; therefore, the draft permit has included the ML as the limitation.															
The facility discharges to a class B (trout) receiving water which requires a seasonal disinfection. The disinfection season is May 1 – October 31.															
Total Copper	µg/L	Daily Max	None	25 Actual Max	8	None	-	-	12.4	11.9	A(C)	76	6 NYCCR 703.5	-	Monitor
	lbs/d		3.0 Action level	2.7	8	-	-	-	-	-	-	-	-	-	-
The WQS for Copper was determined using a receiving water hardness value of 135 mg/L, the average of monitoring data at RIBS station 6022131. The projected instream concentration was calculated using the maximum reported effluent concentration of 42 µg/L and a negligible upstream concentration was assumed. A multiplier ¹² of 1.9 was applied to the maximum effluent concentration to account for 8 samples. The Chronic dilution ratio was applied to calculate the projected instream concentration. A comparison of the projected instream concentration to the WQS indicates a reasonable potential to cause or contribute to a WQS violation.															
Since this reasonable potential determination used a multiplier of 1.9 due to lack of sampling results, the Department has decided that copper should be monitored for more samples. During the next permit renewal, copper will be evaluated again, to determine whether an effluent limit is necessary to protect receiving water quality. Additionally, A watershed maximum daily load (WMDL) has been developed for copper and an action level is being reduced to in the permit to protect downstream water quality in accordance with 6 NYCRR Part 701.1.															
Total Lead	µg/L	Daily Max.	None	11	18	-	-	-	5.86	5.41	A(C)	No Reasonable Potential	Part 703.5	-	Monitor

¹² As recommended from EPA's Technical Support Document, Chapter 3.3

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Outfall #	001	Description of Wastewater: Treated sanitary wastewater														
		Type of Treatment: Bar Screen, Grit Removal Chamber, Primary Clarifiers, Aeration Basins and Secondary Clarifiers														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs							ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ⁸	# of Data Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL			
	lb/d	Daily Max	1.2 Action Level	0.7	18	-	-	-	-	-	-	-	-	-	-	Action Level
There is no reasonable potential for this pollutant; however, a watershed maximum daily load (WMDL) has been developed for copper and an action level is being maintained in the permit to protect downstream water quality in accordance with 6 NYCRR Part 701.1.																
Benzene	µg/L	Daily Max	None	1.0	12	-	-	-	0.45	10	A(C)	No Reasonable Potential	Part 703.5	-	Discontinued	
	lbs/d	Daily Max	0.32 Action Level	0.09	12	-	-	-	-	-	-	-	-	-		-
There is no reasonable potential for this pollutant, so the action level has been removed from permit.																
Chloroform	µg/L	Daily Max	None	26	12	-	-	-	12.4	None for Class B	A(A)	No Reasonable Potential	Part 703.5	-	Discontinued	
	lbs/d	Daily Max	0.45 Action Level	0.06	12	-	-	-	-	-	-	-	-	-		-
There is no reasonable potential for this pollutant, so the action level has been removed from permit.																
Arsenic, Total	µg/L	Daily Max	None	5	8	-	-	-	2.4	50	HEW	No Reasonable Potential	Part 703.5	-	Discontinued	
	lbs/d	Daily Max	1.0 Action Level	0.10	8	-	-	-	-	-	-	-	-	-		-
There is no reasonable potential for this pollutant, so the action level has been removed from permit.																
Total Chromium	µg/L	Daily Max	None	20	8	-	-	-	9.59	50	HEW	No Reasonable Potential	Part 703.5	-	Discontinued	
	lbs/d	Daily Max	4.4 Action Level	1.6	8	-	-	-	-	-	-	-	-	-		-
There is no reasonable potential for this pollutant, so the action level has been removed from permit.																
Total Iron	µg/L	Daily Max	None	120	16	-	-	-	50	300	A(C)	No Reasonable Potential	Part 703.5	-	Monitor	
	lbs/d	Daily Max	130 Action Level	2.4	11	-	-	-	-	-	-	-	-	-	-	Action Level

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Outfall #	001	Description of Wastewater: Treated sanitary wastewater														
		Type of Treatment: Bar Screen, Grit Removal Chamber, Primary Clarifiers, Aeration Basins and Secondary Clarifiers														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs							ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ⁸	# of Data Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL			
There is no reasonable potential for this pollutant; however, a watershed maximum daily load (WMDL) has been developed for iron and an action level is being maintained in the permit to protect downstream water quality in accordance with 6 NYCRR Part 701.1.																
Total Nickel	µg/L	Daily Max	None	20	8	-	-	-	10.68	68.7	A(C)	No Reasonable Potential	Part 703.5	-	Discontinued	
	lbs/d	Daily Max	11.4 Action Level	0.97	11	-	-	-	-	-	-	-	-	-		
There is no reasonable potential (NRP) for this pollutant. The requirements for Nickel have been eliminated from the permit.																
Total Selenium	µg/L	Daily Max	None	6.6	18	-	-	-	2.77	4.6	A(A)	No Reasonable Potential	Part 703.5	-	Discontinued	
	lbs/d	Daily Max	0.6 Action Level	0.14	18	-	-	-	-	-	-	-	-	-		
There is no reasonable potential (NRP) for this pollutant. The requirements for selenium have been eliminated from the permit.																
Total Silver	µg/L	Daily Max	None	4.4	8	-	-	-	-	-	-	-	-	-	Monitor	
	lbs/d	Daily Max	0.15 Action Level	0.07	11	-	-	-	-	-	-	-	-	-	Action Level	
	The current permit has an Action Level for Total Recoverable Silver, whereas 6 NYCRR Part 703.5 does not have a water quality standard (WQS) for Total Silver. Part 703.5 has a WQS for ionic silver, but there is not an approved analytical method for ionic silver. In accordance with TOGS 1.3.1 E, Aa chronic water quality-based effluent limit will not be developed. Technology-based limits will be applied and expressed as total silver; however, there is not an applicable technology for a municipal wastewater treatment facility. A watershed maximum daily load (WMDL) has been developed for silver and an action level is being maintained in the permit to protect downstream water quality in accordance with 6 NYCRR Part 701.1. Monitoring for the total silver concentration is being added to the permit.															
Toluene	µg/L	Daily Max	None	1	48	-	-	-	0.28	100	A(C)	No Reasonable Potential	Part 703.5	-	Discontinued	
	µg/L	Daily Max	0.25 Action Level	0.05	11	-	-	-	-	-	-	-	-	-		
There is no reasonable potential (NRP) for this pollutant, the requirements for Toluene have been eliminated from the permit.																
Xylene	µg/L	Daily Max	None	3	12	-	-	-	1.44	15	A(A)	No Reasonable Potential	Part 703.5	-	Discontinued	

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Outfall #	001	Description of Wastewater: Treated sanitary wastewater														
		Type of Treatment: Bar Screen, Grit Removal Chamber, Primary Clarifiers, Aeration Basins and Secondary Clarifiers														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs							ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ⁸	# of Data Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL			
	lbs/d	Daily Max	0.38 Action Level	0.09	11	-	-	-	-	-	-	-	-	-	-	
There is no reasonable potential (NRP) for this pollutant. The requirements for xylene have been eliminated from the permit.																
Total Zinc	µg/L	Daily Max	None	52	8	-	-	-	20	109	A(C)	No Reasonable Potential	Part 703.5	-	Discontinued	
	µg/L	Daily Max	5.6 Action Level	1.45	11	-	-	-	-	-	-	-	-	-		-
There is no reasonable potential (NRP) for this pollutant. The requirements for zinc have been eliminated from the permit.																
Diethyl Phthalate	µg/L	Daily Max	None	1	8	-	-	-	None	0.78	A(C)	No Reasonable Potential	Part 703.5	-	Discontinued	
	lbs/d	Daily Max	0.60 Action Level	0.31	11	-	-	-	-	-	-	-	-	-		-
There is no reasonable potential (NRP) for this pollutant. The requirements for Diethyl phthalate have been eliminated from the permit.																
Bis(2-ethylhexyl)phthalate	µg/L	Daily Max	None	10	11	-	-	-	-	-	-	-	-	-	Monitor	
	lbs/d	Daily Max	0.60 Action Level	0.30	11	-	-	-	-	-	-	-	-	-	Action Level	
In accordance with TOGS 1.3.1E, effluent limits based on technology or action levels for bis(2-ethylhexyl)phthalate will be recommended. In this case, a watershed maximum daily load (WMDL) has been developed for bis(2-ethylhexyl)phthalate and an action level is being maintained in the permit to protect downstream water quality in accordance with 6 NYCRR Part 701.1 Concentration monitoring is being added to the permit.																
Total Phenolic Compounds	µg/L	Daily Max	None	<0.01	69	-	-	-	-	-	-	-	-	-	Monitor	
	lbs/d	Daily Max	0.83	0.52	69	0.83	Antibacksliding	-	-	-	-	-	-	-	TBEL	
A watershed maximum daily load (WMDL) has been developed for total phenolic compounds. The existing total phenolic compound limit will be maintained and concentration monitoring is being added to the permit.																
Total Chlorinated Phenols	µg/L	Daily Max	None	None	None	None	None	-	-	1.0	-	N/A	Part 703	-	Monitor	
	lbs/d	Daily Max	None	None	None	None	None	-	-	-	-		-	-		-
Monitoring is added to permit for future water quality review.																

Permittee: City of Cortland
 Facility: LeRoy R. Summerson WWTF
 SPDES Number: NY0027561
 USEPA Major/Class 05 Municipal

Date: November 8, 2023 v.1.13
 Permit Writer: Rashid Ahmed
 Water Quality Reviewer: Rashid Ahmed
 Full Technical Review

Outfall #	001	Description of Wastewater: Treated sanitary wastewater													
		Type of Treatment: Bar Screen, Grit Removal Chamber, Primary Clarifiers, Aeration Basins and Secondary Clarifiers													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ⁸	# 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 Unchlorinated Phenols	µg/L	Daily Max	None	None	None	None	None	-	-	5.0	-	N/A	Part 703	-	Monitor
	lbs/d	Daily Max	None	None	None	None	None	-	-	-	-		-	-	
Monitoring is added to permit for future water quality review.															

DRAFT

Appendix: Regulatory and Technical Basis of Permit Authorizations

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

Regulatory References

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

- Clean Water Act (CWA) 33 section USC 1251 to 1387
- Environmental Conservation Law (ECL) Articles 17 and 70
- Federal Regulations
 - 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 factsheet:

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

Outfall and Receiving Water Information

Impaired Waters

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

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

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 factsheet. Consistent with current case law¹³ and USEPA interpretation¹⁴ 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.

¹³ American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)

¹⁴ U.S. EPA, Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California; 65 Fed. Reg. 31682, 31704 (May 18, 2000); Proposed Water Quality Guidance for the Great Lakes System, 58 Fed. Reg. 20802, 20837 & 20981 (April 16, 1993)

Antidegradation Policy

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

Effluent Limitations

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

Technology-based Effluent Limitations (TBELs)

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

Water Quality-Based Effluent Limitations (WQBELs)

In addition to the TBELs, permits must include additional or more stringent effluent limitations and conditions, including those necessary to protect water quality. CWA sections 101 and 301(b)(1)(C), 40 CFR 122.44(d)(1), and 6 NYCRR Parts 750-1.11 require that permits include limitations for all pollutants or parameters which are or may be discharged at a level which may cause or contribute to an exceedance of any State water quality standard adopted pursuant to NYS ECL 17-0301. Additionally, 6 NYCRR 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.

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

Whole Effluent Toxicity (WET) Testing:

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

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

Requirements for Combined Sewer Overflows (CSOs)

Pollution from combined sewer overflows is controlled with implementation of SPDES permit conditions in accordance with the Division of Water CSO Control strategy (TOGS 1.6.3) and the USEPA CSO Control Policy issued April 11, 1994.

CWA Section 402(q) requires that each permit for a discharge from a municipal combined storm and sanitary sewer shall conform to EPA's Combined Sewer Overflow Control Policy.^[1] The CSO Control Policy identifies specific requirements for Phase I and Phase II permits. Phase I permits must include requirements for the implementation of the Nine Minimum Controls (NMCs) and development of the Long-Term CSO Control Plan (LTCP).

The 15 CSO Best Management Practices (BMPs) required by NYS under TOGS 1.6.2 are equivalent to the "Nine Minimum Control Measures" required under the USEPA National Combined Sewer Overflow policy (33 USC section 1342(q)). BMPs are technology-based requirements developed in accordance with best professional judgement. These are largely non-structural measures which are designed to maximize pollutant capture and removal from the combined sewer system and the POTW as a whole.

Phase II permits must include requirements to implement the technology-based controls including the NMCs determined on a BPJ basis, as well as requirements which ensure that the selected CSO controls are implemented, operated, and maintained as described in the long-term CSO control plan (LTCP). These requirements are critical to meeting the objectives of the Policy, including to bring all CSO discharge points into compliance with the technology-based and water quality-based requirements of the CWA, and to minimize the water quality, aquatic biota, and human health impacts from CSOs.

Additionally, the 1994 CSO Control Policy requires permits include a requirement for CSO communities who have developed an approved LTCP to reassess overflows to sensitive areas in those cases where elimination or relocation of the overflows is not physically possible and economically achievable. The reassessment should be based on consideration of new or improved techniques to eliminate or relocate overflows or changed circumstance that influence economic achievability.

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.

^[1] Available at <https://www.epa.gov/sites/production/files/2015-10/documents/owm0111.pdf>

Permittee: City of Cortland
Facility: LeRoy R. Summerson WWTF
SPDES Number: NY0027561
USEPA Major/Class 05 Municipal

Date: November 8, 2023 v.1.13
Permit Writer: Rashid Ahmed
Water Quality Reviewer: Rashid Ahmed
Full Technical Review

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.

Pollutant Minimization Programs

Pollutant Minimization Programs are included when a pollutant is being discharged from the facility at detectable levels and the ML for the most sensitive method is greater than the calculated WQBEL. These programs typically include an on-going potential source identification, evaluation, and prioritization program to demonstrate progress towards meeting the goal of the WQBEL. Pollutant Minimization Plan requirements are based on 40 CFR Part 132 Appendix F Procedure 8, 6 NYCRR 750-1.13(a) and 750-1.14(f), and TOGS 1.2.1.