State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	**4952**	NAICS Code:	**221320**	SPDES Number:	**NY0110116**
Discharge Class (CL):	**07**			DEC Number:	**6-4048-00002**
Toxic Class (TX):	**N**			Effective Date (EDP):	**EDP**
Major-Sub Drainage Basin:	**09 - 02**			Expiration Date (ExDP):	**ExDP**
Water Index Number:	**SL(C)-32-6**	Item No.:	**910 - 222**	Modification Dates (EDPM):	
Compact Area:	**IJC**				

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

PERMITTEE NAME AND ADDRESS					
Name:	**Town of Lawrence**	Attention:	**Town Supervisor**		
Street:	**11403 US 11, P.O. Box 37**				
City:	**North Lawrence**	State:	**NY**	Zip Code:	**12967**
Email:	**supervisor@townoflawrenceny.com**	Phone:	**(315) 740-0105**		

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL														
Name:	**North Lawrence East STP**													
Address / Location:	**North End of Factory Street**											County:	**St. Lawrence**	
City:	**North Lawrence**									**NY**		Zip Code:	**12967**	
Facility Location:		Latitude:	**44**	°	**48**	’	**28**	” N	& Longitude:	**74**	°	**40**	’	**34** ” W
Outfall No.:	**002**	Latitude:	**44**	°	**48**	’	**32**	” N	& Longitude:	**74**	°	**40**	’	**30** ” W
Outfall Description:	**Treated Sanitary**	Receiving Water:	**Deer River**						Class:	**B**		Standard:	**B**	

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

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

DISTRIBUTION:
BWP Permit Coordinator (permit.coordinator@dec.ny.gov)
BWP Permit Writer
RWE
RPA
EPA Region II (Region2_NPDES@epa.gov)
NYSEFC (sara.tully@efc.ny.gov)

Permit Administrator:	
Address:	317 Washington St. Watertown, NY 13601
Signature	Date

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SUMMARY OF ADDITIONAL FACILITIES

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL																				
Name:	**North Lawrence West STP**																			
Location:	**680 feet west of County Rte. 55- and 400-feet northwest of Deer River**														County:	**St. Lawrence**				
City:	**North Lawrence**												**NY**		Zip Code:	**12967**				
Facility Location:		Latitude:	**44**	°	**48**	’	**35**	” N	& Longitude:	**74**	°	**40**	’	**37**	” W					
Outfall No.:	**001**	Latitude:	**44**	°	**48**	’	**36**	” N	& Longitude:	**74**	°	**40**	’	**38**	” W					
Outfall Description:	**Treated Sanitary**								Receiving Water:	**Groundwater**					Class:	**GA**		Standard:	**GA**	

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL																				
Name:	**Nicholville STP**																			
Location:	**East of Water Street and 1,200 feet northwest of NY-11B**														County:	**St. Lawrence**				
City:	**North Lawrence**												**NY**		Zip Code:	**12967**				
Facility Location:		Latitude:	**44**	°	**42**	’	**00**	” N	& Longitude:	**74**	°	**39**	’	**38**	” W					
Outfall No.:	**003**	Latitude:	**44**	°	**41**	’	**60**	” N	& Longitude:	**74**	°	**39**	’	**36**	” W					
Outfall Description:	**Treated Sanitary**								Receiving Water:	**Groundwater**					Class:	**GA**		Standard:	**GA**	

DEFINITIONS

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

PERMIT LIMITS, LEVELS AND MONITORING – OUTFALL 002: North Lawrence East Final Limits

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
002	Year-Round unless otherwise specified	Deer River	Upon DEC Acceptance of Construction Completion[1]	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location Inf.	Location Eff.	
Flow	Monthly Average	0.036	MGD	-		1/day	Calculated	X		2,3
pH	Daily Minimum	6.5	SU	-		1/day	Grab		X	2
	Daily Maximum	8.5	SU	-						
5-Day Biochemical Oxygen Demand (BOD_5)	Monthly Average	30	mg/L	9.0	lbs/d	1/quarter	Grab	X	X	4,5,6
	7-Day Average	45	mg/L	14	lbs/d	1/quarter	Grab		X	4,5,6
Total Suspended Solids (TSS)	Monthly Average	30	mg/L	9.0	lbs/d	1/quarter	Grab	X	X	4,5,6
	7-Day Average	45	mg/L	14	lbs/d	1/quarter	Grab		X	4,5,6
Settleable Solids	Daily Maximum	0.1	mL/L	-		1/day	Grab		X	4
Ammonia (as N) June 1st – October 31st	Monthly Average	2.1	mg/L	-		1/quarter	Grab		X	2,6
Ammonia (as N) November 1st – May 31st	Monthly Average	3.2	mg/L	-		1/quarter	Grab		X	2,6
Total Phosphorus (as P)	Monthly Average	Monitor	mg/L	Monitor	lbs/d	1/quarter	Grab		X	2,6
Visual Observation	-	-		-		1/day	Visual		X	2,7

EFFLUENT DISINFECTION Required seasonally from May 1st - October 31st		Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Coliform, Fecal	30-Day Geometric Mean	200	No./ 100 mL	-		4/season	Grab		X	8
	7-Day Geometric Mean	400	No./ 100 mL	-		4/season	Grab		X	8
Total Residual Chlorine	Daily Maximum	0.03	mg/L	-		1/day	Grab		X	2, 9,10

FOOTNOTES FOR OUTFALL 002:

1. Final effluent limitations for Outfall 002 become effective at DEC Acceptance of Construction Completion at Outfall 002 (see Schedule of Compliance for date).
2. The interim limit and sample frequency for flow, pH, ammonia, phosphorus, visual observation, and total residual chlorine can be found in the Schedule of Compliance.
3. Daily flows shall be estimated from dosing pump hours. The reported monthly average flow value shall be calculated as the sum of the daily flows for the month divided by the number of days in the month for which flow was estimated.

Footnotes Continued on Next Page

4. The interim limit and sample frequency for BOD_5, TSS, settleable solids, and fecal coliform can be found in Order on Consent R6-20241017-40.
5. Effluent shall not exceed 15% of influent concentration values for BOD_5 & TSS.
6. Quarterly samples shall be collected in calendar quarters (Q1 – January 1st to March 31st; Q2 – April 1st to June 30th; Q3 – July 1st to September 30th; Q4 – October 1st to December 31st).
7. Visual observations of the effluent shall be recorded, including date, time, color of effluent, and any other pertinent information. Records shall be attached to the DMR submissions for the month in which the visual observations were made.
8. For 4/season sampling, collect two samples from May 1st – July 31st and two samples from August 1st – October 31st. For months that are not sampled, the permittee shall report NODI-9 on the DMR.
9. Sampling and reporting for total residual chlorine are only necessary if chlorine is used for disinfection, elsewhere in the treatment process, or the facility otherwise has reasonable potential to discharge chlorine. Otherwise, the permittee shall report NODI-9 on the DMR.
10. This is a Compliance Level. The calculated Water Quality Based Effluent Limit (WQBEL) for total residual chlorine is 0.015 mg/L.

PERMIT LIMITS, LEVELS AND MONITORING – OUTFALL 002: North Lawrence East Emerging Contaminants

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
002	Year-Round unless otherwise specified	Deer River	EDP	ExDP

EMERGING CONTAMINANTS OUTFALL 002		Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Perfluorobutanoic Acid (PFBA) CAS No. 375-22-4 DMR Code: 51522	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
Perfluoropentanoic Acid (PFPeA) CAS No. 2706-90-3 DMR Code: 51623	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
Perfluorohexanoic Acid (PFHxA) CAS No.307-24-4 DMR Code: 51624	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
Perfluoroheptanoic Acid (PFHpA) CAS No. 375-85-9 DMR Code: 51625	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
Perfluorooctanoic Acid (PFOA) CAS No. 335-67-1 DMR Code: 51521	Daily Maximum	-		10	ng/L	1/quarter	Grab		X	1,2,3
Perfluoro-nonanoic Acid (PFNA) CAS No. 375-95-1 DMR Code: 51626	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
Perfluoro-decanoic Acid (PFDA) CAS No. 335-76-2 DMR Code: 51627	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
Perfluoroundecanoic Acid (PFUnA) CAS No. 2058-94-8 DMR Code: 51628	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
Perfluorododecanoic Acid (PFDoA) CAS No. 307-55-1 DMR Code: 51629	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
Perfluorotridecanoic Acid (PFTriA) CAS No. 72629-94-8 DMR Code: 51630	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
Perfluorotetradecanoic Acid (PFTeA) CAS No. 376-06-7 DMR Code: 51631	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
Perfluorobutanesulfonic Acid (PFBS) CAS No. 375-73-5 DMR Code: 52602	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
Perfluoropentanesulfonic Acid (PFPeS) CAS No. 2706-91-4 DMR Code: 52610	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
Perfluorohexanesulfonic Acid (PFHxS) CAS No. 355-46-4 DMR Code: 52605	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
Perfluoroheptanesulfonic Acid (PFHpS) CAS No. 375-92-8 DMR Code: 52604	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
Perfluorooctanesulfonic Acid (PFOS) CAS No. 1763-23-1 DMR Code: 52606	Daily Maximum	-		10	ng/L	1/quarter	Grab		X	1,2,3
Perfluorononanesulfonic Acid (PFNS) CAS No. 68259-12-1 DMR Code: 52611	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
Perfluorodecanesulfonic Acid (PFDS) CAS No. 335-77-3 DMR Code: 52603	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2

EMERGING CONTAMINANTS OUTFALL 002		Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Perfluorododecanesulfonic Acid (PFDoS) CAS No. 79780-39-5 DMR Code: 52632	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
Perfluorooctanesulfonamide (FOSA) CAS No. 754-91-6 DMR Code: 51525	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA) CAS No. 2355-31-9 DMR Code: 51644	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA) CAS No. 2991-50-6 DMR Code: 51643	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
1H,1H,2H,2H-Fluorotelomer Sulfonic Acid (4:2 FTS) CAS No. 757124-72-4 DMR Code: 52607	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
1H,1H,2H,2H- Fluorotelomer Sulfonic Acid (6:2 FTS) CAS No. 27619-97-2 DMR Code: 52608	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
1H,1H,2H,2H- Fluorotelomer Sulfonic Acid (8:2 FTS) CAS No. 39108-34-4 DMR Code: 52609	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
N-ethyl Perfluoro-octanesulfon-amide (NEtFOSA) CAS No. 4151-50-2 DMR Code: 52642	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA) CAS No. 31506-32-8 DMR Code: 52641	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE) CAS No. 24448-09-7 DMR Code: 51642	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE) CAS No. 1691-99-2 DMR Code: 51641	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS) CAS No. 756426-58-1 DMR Code: PF003	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA or GenX) CAS No. 13252-13-6 DMR Code: 52612	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS) CAS No. 763051-92-9 DMR Code: PF004	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA) CAS No. 919005-14-4 DMR Code: 52636	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
3-Perfluoropropyl Propanoic Acid (3:3FTCA) CAS No. 356-02-5 DMR Code: PF001	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2

EMERGING CONTAMINANTS OUTFALL 002		Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA) CAS No. 914637-49-3 DMR Code: PF007	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
3-Perfluoroheptyl Propanoic Acid (7:3FTCA) CAS No. 812-70-4 DMR Code: PF005	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
Nonafluoro-3,6-dioxaheptanoic Acid (NFDHA) CAS No. 151772-58-6 DMR Code: 52626	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
Perfluoro-4-Methoxybutanoic Acid (PFMBA) CAS No. 863090-89-5 DMR Code: PF006	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
Perfluoro-3-Methoxypropanoic Acid (PFMPA) CAS No. 377-73-1 DMR Code: PF002	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA) CAS No. 113507-82-7 DMR Code: 52629	Daily Maximum	Monitor	ng/L	-		1/quarter	Grab		X	1,2

FOOTNOTES FOR OUTFALL 002 EMERGING CONTAMINANTS:

1. All PFAS compound sampling shall use EPA Method 1633/1633A. Note that "DMR code" corresponds to the 5-digit code displayed in the top left of each parameter line on the DMR page within NetDMR.

2. Quarterly samples shall be collected in calendar quarters (Q1 – January 1st to March 31st; Q2 – April 1st to June 30th; Q3 – July 1st to September 30th; Q4 – October 1st to December 31st).

3. Emerging Contaminants Action Level: The permittee must collect one (1) confirmatory sample within seven (7) days of receiving the test result(s) when an Action Level is exceeded. If confirmed exceedance, the permittee must notify DEC at emergingcontaminantsdow@dec.ny.gov and initiate minimization program and continuous reporting as outlined in the Schedule of Additional Submittals. Upon initiation of the minimization program, confirmatory sampling is no longer required when an Action Level is exceeded. If the reporting limit (RL) exceeds the Action Level, and the laboratory method shows no detection, the permittee must provide the DEC with documentation from the laboratory supporting the RL, including the basis for any matrix interference or method limitations.

PERMIT LIMITS, LEVELS AND MONITORING – OUTFALL 003: Nicholville

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
003	Year -Round unless otherwise specified	Groundwater	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
								Location		
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	
Flow	Monthly Average	0.0170	MGD	-		1/week	Calculated	X		1
pH	Daily Minimum	6.5	SU	-		1/day	Grab		X	
	Daily Maximum	8.5	SU	-						
5-Day Biochemical Oxygen Demand (BOD_5)	Daily Maximum	Monitor	mg/L	-		1/quarter	Grab		X	2
Total Suspended Solids (TSS)	Daily Maximum	Monitor	mg/L	-		1/quarter	Grab		X	2

FOOTNOTES FOR OUTFALL 003:

1. Weekly flows shall be estimated from dosing pump hours. The reported monthly average flow value shall be calculated as the sum of the weekly flows for the month divided by the number of weeks in the month for which flow was estimated.

2. Quarterly samples shall be collected in calendar quarters (Q1 – January 1st to March 31st; Q2 – April 1st to June 30th; Q3 – July 1st to September 30th; Q4 – October 1st to December 31st).

SPECIAL CONDITIONS

1. **Construction Commencement:** The permittee shall not commence construction until receiving written approval from DEC approving final engineering design documents. If any changes are made to the approved design during construction, the permittee must notify the DEC.

2. **Commencement of Operations:** The permittee shall not commence discharge from the proposed upgraded facility until the permittee has submitted a Construction Completion Certification (see Schedule of Additional Submittals) and received DEC acceptance of the certification.

3. **Closure Requirements for Outfall 001:**

    a. The permittee shall provide written notification to the Regional Water Engineer of any actual or potential discharges to groundwater which may exist at the Outfall 001 site.

    b. The permittee shall properly manage and/or remove all residual materials (including collected grit and screenings, scums, sand bed material, and dried or liquid sludges), as well as filter media, and all other solids from the treatment process that may remain in the abandoned treatment works. This special condition includes:

        i. The permittee shall submit to the Regional Water Engineer proof of ownership or contractual arrangement with an operation(s) permitted to manage all waste materials at the site. Contracts with haulers will only be accepted if documentation of management at an approved site(s) is included. All necessary State or Federal permits or approvals must accompany the submission.

        ii. The permittee shall remove all residual material within 180 calendar days after the system is taken out of service. The permittee shall submit to the Regional Water Engineer proof of proper residuals management, specifying dates and quantities of removal, within 30 calendar days of their removal.

        iii. Upon completion of all requirements in 6 NYCRR 750-2.11(c), the permittee shall contact the Regional Water Engineer, in writing, to schedule a final site inspection to verify that the influent and effluent pipes have been sealed and that all solid and residual materials related to the treatment process have been removed.

    c. See also Schedule of Compliance

MERCURY MINIMIZATION PROGRAM (MMP) - Type IV Outfall 002

On 5/8/2025, the permittee submitted a Conditional Exclusion Certification, certifying that the facility does not have any of the mercury sources listed in Part III.E. of DOW 1.3.10 contributing to the flow at Outfall 002.

1. General – To reduce mercury effluent levels with the goal of achieving the water quality standard of 0.7 ng/L, the permittee must develop, implement, and maintain a written MMP plan, which includes the elements set forth below.
2. Conditional Exclusion Certification – A certification (Appendix C of DOW 1.3.10), signed in accordance with 6 NYCRR 750-1.8, must be submitted once every 5 years for Outfall 002 to the Regional Water Engineer and to the Bureau of Water Permits, certifying that the facility is neither a mercury source nor receives flows from a mercury source. Criteria to determine if a facility has a mercury source are as follows:
    - The facility is, or receives flow from, a Combined Sewer System (CSS) or sanitary sewer system with Type II Sanitary Sewer Overflows (SSO[1]);
    - One or more effluent samples exceed 12 ng/L, including samples taken as a result of the SPDES application process;
    - Internal or tributary waste stream samples exceed the GLCA effluent limitation of 25 ng/L and the final effluent samples are less than the GLCA due primarily to dilution by uncontaminated or less contaminated waste streams. Both components of this criterion may include samples taken as a result of the SPDES application process;
    - A SPDES permit application, or other information, indicates that mercury is handled on-site and could be discharged through outfalls;
    - Existence of outfalls that contain legacy mercury contamination;
    - The facility's collection system receives discharges from a dental and/or Categorical Industrial User (CIU[2]) that may discharge mercury;
    - The facility accepts hauled wastes; OR,
    - The facility is defined as a categorical industry that may discharge mercury. This may also include dentists, universities, hospitals, or laboratories, which have their own individual SPDES permit.
3. Control Strategy – develop and implement with the following minimum elements:
    a. 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.
    b. Bulk Chemical Evaluation – for chemicals used at a rate which exceeds 1,000 gallons/year or 10,000 pounds/year, the permittee must obtain:
        i. A manufacturer's certificate of analysis;
        ii. A chemical analysis performed by a certified laboratory; OR,
        iii. A notarized affidavit that describes the substances' mercury concentration and the detection limit achieved.

    Where practicable, the permittee must only use bulk chemicals in the wastewater treatment process which contain <10 parts per billion (ppb) of mercury.

[1] These are Overflow Retention Facilities (ORFs) and are included under the 05 and 07 permit classifications.
[2] CIUs include those listed under Federal Regulation in 40 CFR Parts 405–471.

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

4. Status Report – An **annual** status report must be developed, in accordance with the Schedule of Additional Submittals, summarizing:

    a. Review of criteria to determine if the facility has a potential mercury source;

    b. All actions undertaken, pursuant to the control strategy, during the previous year; and

    c. Actions planned, pursuant to the control strategy, for the upcoming year.

    The first status report is due in accordance with the Schedule of Additional Submittals. The permittee must maintain a file on-site with all MMP documentation.

5. MMP Modification – the permittee must submit a permittee-initiated modification request to DEC whenever:

    a. Changes at the facility, or within the collection system, increase the potential for mercury discharges; OR,

    b. A letter from DEC identifies inadequacies in the MMP.

    The permittee may use information in the status reports, as applicable in accordance with item 3 of this MMP, as a basis for the permittee-initiated modification.

DEFINITIONS:

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

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DISCHARGE NOTIFICATION REQUIREMENTS - OUTFALL 002: North Lawrence East

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

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

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

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

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

N.Y.S. PERMITTED DISCHARGE POINT

SPDES PERMIT No.: NY_____

OUTFALL No. :____

For information about this permitted discharge contact:

Permittee Name: _____

Permittee Contact: _____

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

OR:

NYSDEC Division of Water Regional Office Address:

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

b

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

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

SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

Outfall(s)	Compliance Action	Compliance Date[3]
001 & 002	INTERIM REPORTS The permittee shall submit a status update on the next required compliance action every 9 months until the date of construction completion as specified in Schedule A of Order on Consent #R6-20241017-40.	Every 9 months until date of Construction Completion
001, 002, & 003	ENGINEERING REPORT The permittee shall submit an engineering report as required in Schedule A of Order on Consent #R6-20241017-40. Should the flow or other design information for the proposed facility at Outfall 002 be different from the submitted application, the permittee shall submit, in conjunction with this engineering report, a request to modify this SPDES permit to align with the new design.	As Required in Order #R6-20241017-40
001 & 002	DESIGN DOCUMENTS - OUTFALLS 001 & 002 The permittee shall submit final design plans and specifications, basis of design, and implementation schedule as required in Schedule A of Order on Consent #R6-20241017-40.	As Required in Order #R6-20241017-40
001	OUTFALL 001 CLOSURE PLAN The permittee shall submit: 1. Pertaining to closure activities a. Date the system will cease operation b. Date the influent and effluent pipes will be sealed c. Plans for final disposition of the physical facilities and for elimination of equipment and/or conditions that could pose a safety hazard either during or after shut-down of operations, each signed & sealed by a NYS licensed engineer d. Name of the licensed individual responsible for operation and maintenance of the wastewater pumping station and/or disposal systems that are still to be maintained 2. See also Special Conditions	60 days prior to Construction Completion for Outfall 002
002	COMPLETE CONSTRUCTION - OUTFALL 002 The permittee shall provide a Construction Completion Certification[4] to the DEC (send to the Regional Water Engineer and NetDMR@dec.ny.gov) that the disposal system has been fully completed in accordance with the approved Design Documents.	As Required in Order #R6-20241017-40
002	COMMENCE OPERATION – OUTFALL 002 Following receipt of DEC acceptance of the Construction Completion Certification, the permittee shall comply with the final effluent limitation(s) described in this permit.	Upon Department Acceptance
Unless noted otherwise, the above actions are one-time requirements.		
See next page for Interim Effluent Limits.		

[3] 6 NYCRR 750-1.14 (a)
[4] 6 NYCRR 750-2.10 (c)

Outfall 001: North Lawrence West Interim Effluent Limits

OUTFALL	EFFECTIVE	EXPIRING
001	EDP	See Note 1

PARAMETER	INTERIM EFFLUENT LIMIT					MONITORING REQUIREMENTS				Notes
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location Inf.	Location Eff.	
Flow	Monthly Average	0.0103	MGD	-		1/Week	Instantaneous	X		1
5-Day Biochemical Oxygen Demand (BOD_5)	Daily Maximum	Monitor	mg/L	-		1/year	Grab		X	1,2
Total Suspended Solids (TSS)	Daily Maximum	Monitor	mg/L	-		1/year	Grab		X	1,2

Notes:
1. Interim Limits expire upon DEC acceptance of construction completion at Outfall 002 (see Schedule of Compliance for date)
2. BOD_5 and TSS samples shall be taken at the perimeter drain.

Outfall 002: North Lawrence East Interim Effluent Limits

OUTFALL	EFFECTIVE	EXPIRING
002	EDP	See Note 1

PARAMETER	INTERIM EFFLUENT LIMIT					MONITORING REQUIREMENTS				Notes
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location Inf.	Location Eff.	
Flow	Monthly Average	0.0257	MGD	-		5/Week	Instantaneous	X		1
pH	Minimum	6.0	SU	-		5/Week	Grab		X	1
	Maximum	9.0	SU	-		5/Week	Grab		X	1
Ammonia (as N)	Monthly Average	Monitor	mg/L	-		1/Quarter	Grab		X	1,2
Total Phosphorus (as P)	Monthly Average	Monitor	mg/L	Monitor	lbs/d	1/Quarter	Grab		X	1,2
Visual Observation	-	-	-	-	-	5/week	Visual		X	1,3
Effluent Disinfection required May 1 to October 31										
Total Residual Chlorine	Daily Maximum	2.0	mg/L	-		5/Week	Grab		X	1,4

Notes:

1. Interim limits expire upon DEC acceptance of construction completion (see Schedule of Compliance for date).
2. Quarterly samples shall be collected in calendar quarters (Q1 – January 1st to March 31st, Q2 – April 1st to June 30th, Q3 – July 1st to September 30th, Q4 – October 1st to December 31st.
3. Visual observations of the effluent shall be recorded, including date, time, color of effluent, and any other pertinent information.
4. Sampling and reporting for total residual chlorine are only necessary if chlorine is used for disinfection, elsewhere in the treatment process, or the facility otherwise has reasonable potential to discharge chlorine. Otherwise, the permittee shall report NODI-9 on the DMR.
5. Additional interim sampling requirements must be performed in accordance with the Order on Consent R6-20241017-40.

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

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

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

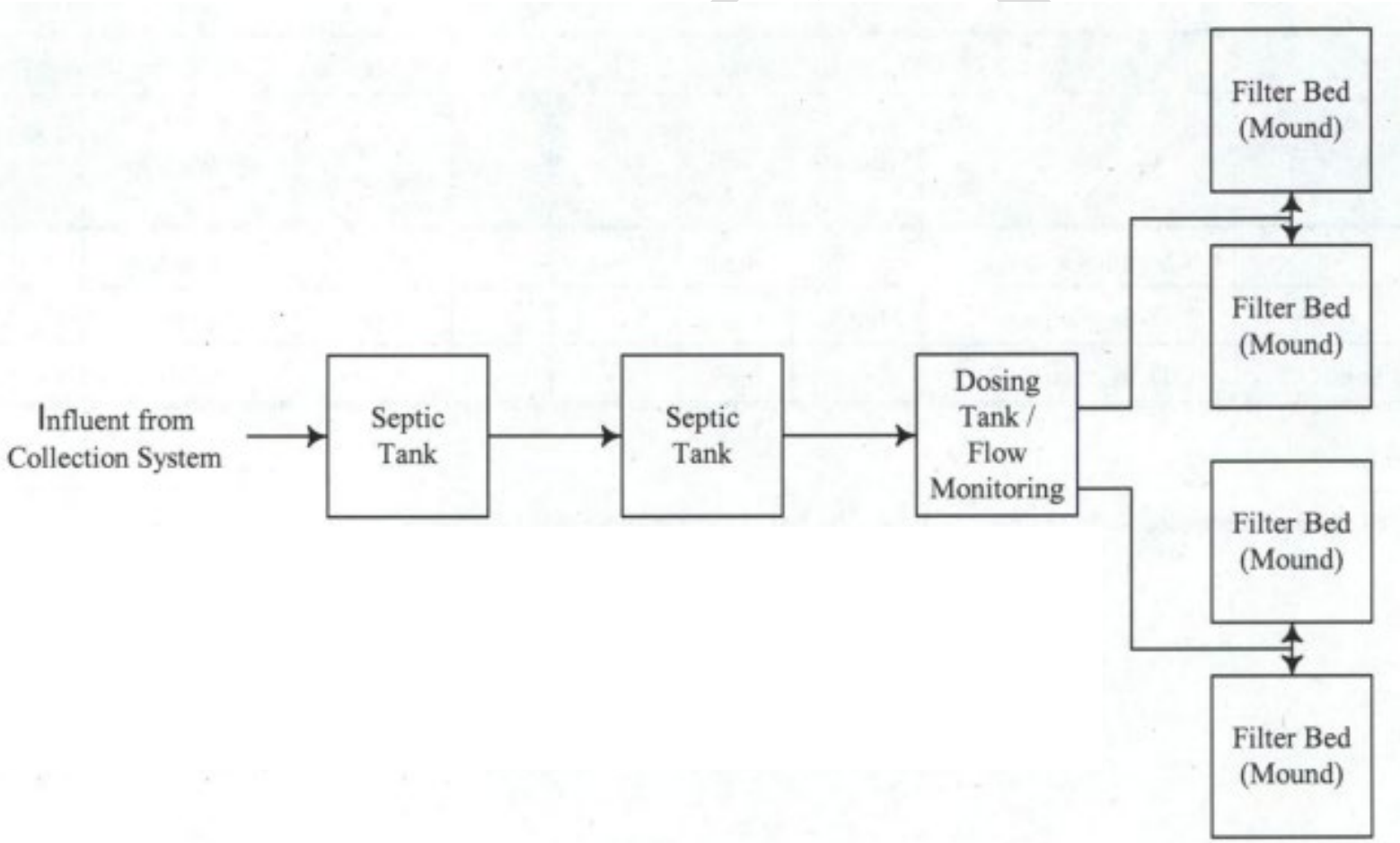
d) No construction, operation or use of a disposal system for facilities covered by this permit shall occur except in accordance with plans approved in advance by DEC.

MONITORING LOCATIONS: Outfall 001 North Lawrence West and Outfall 003 Nicholville

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

Influent: Flow monitoring is based on dosing pump hours

Effluent: pH, BOD_5, and TSS samples are collected from the perimeter drain of the mound system

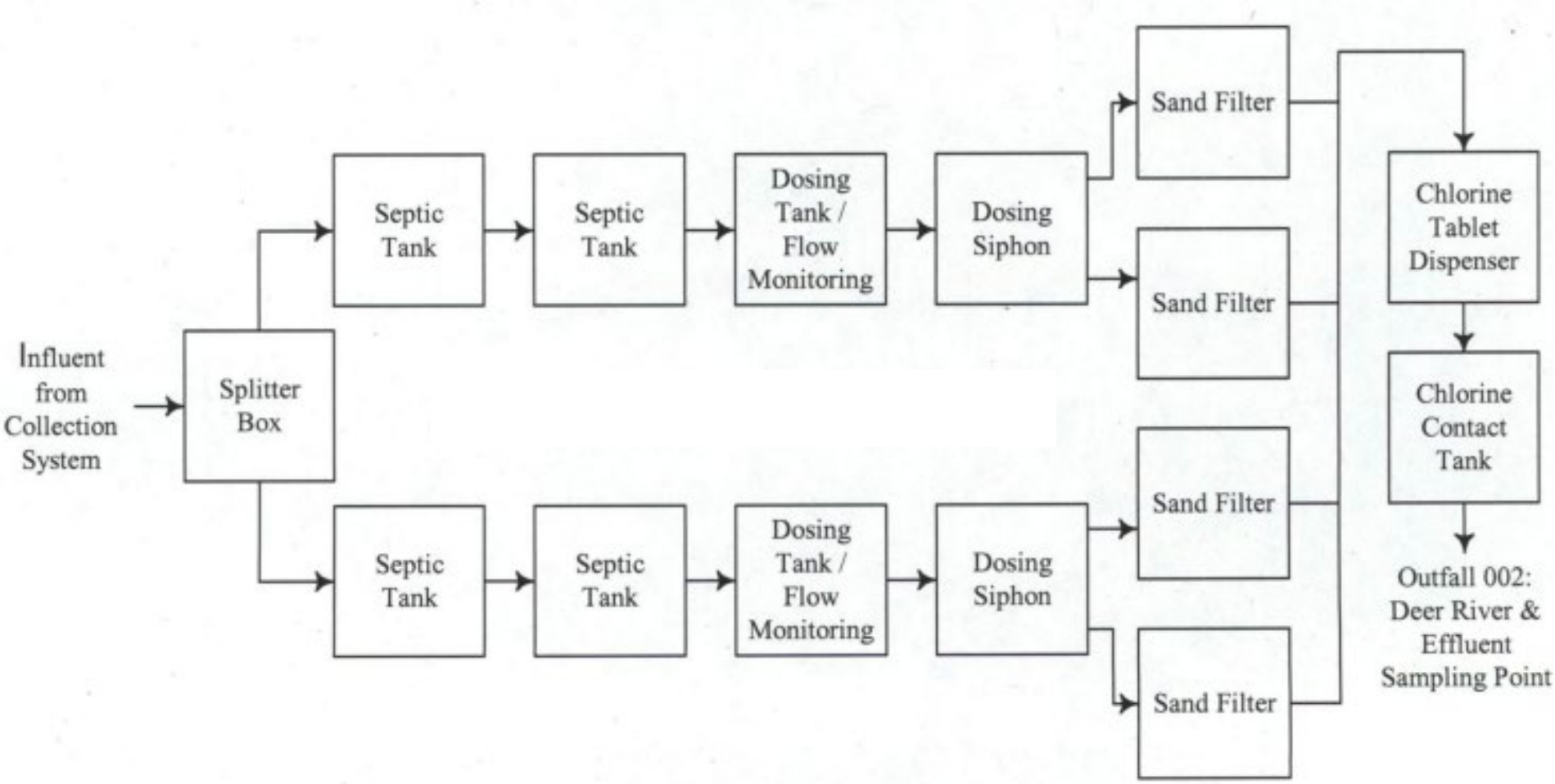


MONITORING LOCATIONS: Outfall 002 North Lawrence East

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

Influent: Flow monitoring is based on dosing pump hours

Effluent: Effluent sampling takes place after the chlorine contact tank and prior to discharge to the Deer River



GENERAL REQUIREMENTS

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

B. General Conditions

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

C. Operation and Maintenance

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

D. Monitoring and Records

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

E. Reporting Requirements

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

F. Planned Changes

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

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

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

GENERAL REQUIREMENTS (continued)

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

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

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

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

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

I. Water Treatment Chemicals (WTCs)
   New or increased use and discharge of a WTC requires prior DEC review and authorization. At a minimum, the permittee must notify the DEC in writing of its intent to change WTC use by submitting a completed *WTC Notification Form* for each proposed WTC. The DEC will review that submittal and determine if a SPDES permit modification is necessary or whether WTC review and authorization may proceed under the current permit. The majority of WTC authorizations do not require SPDES permit modification. In any event, use and discharge of a WTC shall not proceed without prior authorization from the DEC. Examples of WTCs include biocides, coagulants, conditioners, corrosion inhibitors, defoamers, deposit control agents, flocculants, scale inhibitors, sequestrants, and settling aids.
   1. WTC use shall not exceed the rate explicitly authorized by this permit or otherwise authorized in writing by the DEC.
   2. The permittee shall maintain a logbook of all WTC use, noting for each WTC the date, time, exact location, and amount of each dosage, and, the name of the individual applying or measuring the chemical. The logbook must also document that adequate process controls are in place to ensure that excessive levels of WTCs are not used.
   3. The permittee shall submit a completed WTC Annual Report Form each year that they use and discharge WTCs. This form shall be submitted in electronic format and attached to either the December DMR or the annual monitoring report required below. The *WTC Notification Form and WTC Annual Report Form* are available from the DEC's website at: http://www.dec.ny.gov/permits/93245.html

RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

A. The monitoring information required by this permit shall be retained for a period of at least five years from the date of the sampling for subsequent inspection by the DEC or its designated agent.

B. Discharge Monitoring Reports (DMRs): Completed DMR forms shall be submitted for each quarterly reporting period in accordance with the DMR Manual available on DEC's website.

DMRs must be submitted electronically using the electronic reporting tool (NetDMR) specified by DEC. Instructions on the use of NetDMR can be found at: How To Complete And Submit Discharge Monitoring Reports (DMRs) - NYSDEC. **Hardcopy paper DMRs will only be accepted if a waiver from the electronic submittal requirements has been granted by DEC to the facility.**

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

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

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

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

Department of Environmental Conservation
Regional Water Engineer, Region 6
State Office Building, Watertown, New York, 13601-3787 Phone: (315) 785-2513

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

E. Schedule of Additional Submittals:

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

SCHEDULE OF ADDITIONAL SUBMITTALS		
Outfall(s)	**Required Action**	**Due Date**
001, 003	EMERGING CONTAMINANT SHORT-TERM MONITORING PROGRAM The permittee shall collect grab samples of both the influent and effluent from the facility's treatment system(s) associated with the identified outfall for Per-and Polyfluoroalkyl Substances (PFAS) unless permittee receives written notification from the DEC during this time that sampling can be discontinued. Samples must be analyzed utilizing EPA method 1633. The samples must represent normal discharge conditions and treatment operations and shall be obtained on a quarterly basis for at least 4 consecutive quarters, unless written notification from the DEC indicates otherwise. Emerging Contaminants results must be reported utilizing the template provided and should be kept on file with the permittee until all 4 sampling event results are obtained. Once all 4 sampling event results are received, they shall be reported together to the DEC through the "Emerging Contaminants Survey for POTWs" found at: Emerging Contaminants In NY's Waters - NYSDEC. The template, instructions for the laboratory, and chain of custody form are also available at this link. If results indicate the presence of Emerging Contaminants, the permittee shall initiate track down of potential sources by completing the "Emerging Contaminants Investigation Checklist for POTWs" available at the above link. The DEC may periodically request updates or additional monitoring to check progress on track down investigations. Elements of the checklist may be used as permit conditions in future permit modifications.	EDP + 18 months Within 90 days of DEC written notification
002	EMERGING CONTAMINANT (EC) MINIMIZATION PROGRAM The permittee shall initiate track down of potential sources by utilizing the "Emerging Contaminants Investigation Checklist for POTWs" available at Emerging Contaminants In NY's Waters - NYSDEC The permittee shall continue track down of potential sources and submit reports summarizing: a. All EC monitoring results taken to date; b. A list of likely EC sources; c. All actions taken to reduce EC contaminants; and d. Proposed next steps, including a monitoring plan to identify/confirm EC sources, and ensure continued progress towards minimization/eliminating contaminants. *Reports no longer required once effluent falls below action levels for at least 12 months or until further notified by the DEC.	Confirmation of initial Action Level exceedance 12 months after confirmation of initial Action Level exceedance, and every 6 months thereafter*
001,002, 003	WATER TREATMENT CHEMICAL (WTC) ANNUAL REPORT FORM The permittee shall submit a completed WTC Annual Report Form each year that Water Treatment Chemicals are used. The form shall be attached to the December DMR.	December DMR (January 28th)
001, 002, 003	ANNUAL FLOW CERTIFICATION The permittee shall submit an Annual Flow Certification form each year in accordance with 750-2.9(C)(4). The form shall be attached to the February DMR or submitted through nForm.	February DMR (March 28th)
002	MERCURY - CONDITIONAL EXCLUSION CERTIFICATION Permittee must submit a mercury conditional exclusion certification every five years in order to maintain MMP Type IV status. As part of the certification the permittee will be required to sample the effluent and measure <12 ng/L.	05/08/2030, and every 5 years thereafter

SCHEDULE OF ADDITIONAL SUBMITTALS		
Outfall(s)	**Required Action**	**Due Date**
002	MERCURY MINIMIZATION PLAN The permittee must complete and maintain onsite a mercury minimization plan and subsequent annual mercury minimization status reports in accordance with the requirements of this permit.	***Maintained Onsite*** EDP + 12 months, annually thereafter

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

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

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

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

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

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

SPDES Permit Fact Sheet
Town of Lawrence
North Lawrence and Nicholville STPs
NY0110116

Contents

Summary of Permit Changes

State Pollutant Discharge Elimination System (SPDES) permittee-initiated permit renewal and modification has been drafted for the North Lawrence and Nicholville Sewage Treatment Plants (STPs). The changes to the permit are summarized below:

- Updated permit format, definitions, and general conditions
- Removed Outfall 001 limits table
- Outfall 002:
    - Added new final limits table reflecting the proposed upgraded facility, including:
        - Increased flow limit to the new design flow
        - Decreased pH range
        - Increased Biochemical Oxygen Demand (BOD_5) and Total Suspended Solids (TSS) loading values consistent with the new design flow
        - Decreased Total Residual Chlorine (TRC) limit
        - Added a new monthly average concentration limit for ammonia
        - Added monthly average concentration and load monitoring for total phosphorus
        - Updated sampling frequency for BOD_5 and TSS to quarterly
        - Updated disinfection season end date to October 31
        - Removed footnote requiring the maintenance of a chlorine residual in the chlorine contact chamber
        - Updated footnote for visual observations with a requirement to attach visual observation records to the corresponding months' Discharge Monitoring Reports (DMRs)
        - Added footnote defining semiannual sampling
        - Added footnotes for TRC requiring sampling only when chlorine is used and clarifying that the TRC limit in the permit is a compliance level and specifying the calculated water quality-based effluent limit (WQBEL)
        - Added Action Levels for PFOA and PFOS with associated footnotes defining appropriate lab method and actions to be taken in the event of an exceedance of the Action Level
        - Added monitoring for the remaining 38 PFAS compounds
- Outfall 003:
    - Added minimum and maximum pH limitations
    - Changed Carbonaceous Biochemical Oxygen Demand ($cBOD_5$) to BOD_5
    - Increased BOD_5 and TSS sampling frequency to quarterly and added footnote defining quarterly sampling
    - Updated perimeter drain sampling location footnote to include pH sampling
- Special Conditions:
    - Added special condition requiring permittee to have DEC approval of final engineering design documents prior to beginning construction of the proposed facility
    - Added special condition specifying that the permittee cannot commence discharge from the upgraded plant until submission and receipt of DEC acceptance of a Construction Completion Certification
    - Added special conditions outlining the closure requirements for Outfall 001 as the upgrade project proceeds
- Added requirements for the implementation of a Mercury Minimization Plan (MMP) Type IV

- Added Schedule of Compliance for the upgrade of the Outfall 002 facility and closure of Outfall 001 including requirements for:
  - Submission of an Engineering Report
  - Submission of Design Documents
  - Submission of an Outfall 001 Closure Plan
  - Submission of a Construction Completion Certificate
  - Commencement of Operations
- Added interim limits table for Outfall 001:
  - Maintained limits from previous permit as interim limits
  - Changed $cBOD_5$ to BOD_5
- Added interim limits table for Outfall 002:
  - Maintained limits from previous permit as interim limits
  - Updated BOD_5, TSS, Settleable Solids, and Fecal Coliform limits to reflect the requirements in the active Order on Consent
  - Added monthly average concentration monitoring for ammonia
  - Added monthly average concentration and load monitoring for total phosphorus
- Added Schedule of Additional Submittals, including:
  - Addition of Emerging Contaminants Short-Term monitoring program for Outfalls 001 and 003
  - Addition of Emerging Contaminants Minimization Program for Outfall 002 upon exceedance of Action Levels for Perfluorooctanoic acid (PFOA) or Perfluorooctane Sulfonic Acid (PFOS)
  - Addition of a requirement for all Outfalls for submission of a Water Treatment Chemical (WTC) annual report when WTCs are used at the facility
  - Addition of a requirement for all Outfalls for submission of the Annual Flow Certification Form
  - Addition of a requirement for Outfall 002 for submission of a Mercury Conditional Exclusion Certification every 5 years
  - Addition of a requirement for Outfall 002 for development and maintenance of an on-site Mercury Minimization Plan

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

Administrative History

6/1/1987 A full technical review was performed and the SPDES permit became effective with a five-year term and expiration date of 6/1/1992.

The permit was administratively renewed in 1992, 1997, 2002, and 2007.

8/1/2011 The 2007 SPDES permit underwent a full technical review and was modified to increase monitoring frequency at Outfall 002, increase Discharge Monitoring Report (DMR) submittal frequency, and to require the Town to submit monthly Wastewater Facility Operation Reports. The permit did not receive a new five-year term, maintaining the expiration date of 5/31/2012. The 2011 permit modification has formed the basis of this permit.

The permit was administratively renewed in 2012 and again in 2022. The current permit administrative renewal is effective until 9/30/2027.

9/24/2024 DEC performed an inspection of the facility and informed the Town of Lawrence of the need to submit an application for an updated SPDES permit due to proposed upgrades at the facility funded through a Northern Border Regional Commission grant received by the Town.

3/14/2025 The Town of Lawrence submitted permit applications for each of the three treatment plant locations in the permit. Each application included a NY-2A form, topographic map, process flow diagram, and the Consideration of Future Physical Climate Risk Form. Additionally, the Town included a Detailed Mixing Zone Form for the North Lawrence East treatment plant.

5/1/2025 DEC sent a request for additional information including the lab reports for all Outfalls, Conditional Exclusion Certification for Outfall 002, and Detailed Mixing Zone Form.

5/12/2025 The Town of Lawrence submitted the lab reports for all three locations and the Conditional Exclusion Certification for Outfall 002.

6/16/2025 DEC met with the Town of Lawrence and their engineers to discuss locations for Outfall 002 and potential SPDES permit limits based on the location.

9/30/2025 The Town of Lawrence signed Consent Order R6-20241017-40 (see Enforcement History).

12/4/2025 The Town of Lawrence submitted a revised Detailed Mixing Zone Form for the North Lawrence East treatment plant (Outfall 002). Revisions included a proposed new discharge location.

1/9/2026 The Town of Lawrence sent an email informing DEC of the Town's intention to send the flows from the North Lawrence West treatment plant (Outfall 001) to the North Lawrence East treatment plant (Outfall 002), increasing flow at Outfall 002 to 0.036 MGD.

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

Facility Information

The SPDES permit currently covers three separate treatment plant sites. All three systems receive flow from domestic users via separate sewers, with effluent consisting of treated sanitary sewage. There are no significant industrial users (SIUs).

The North Lawrence West site (Outfall 001) is located off County Route 55 in the Hamlet of North Lawrence and is permitted for 10,300 gallons per day (gpd) (0.0103 MGD). The Nicholville site (Outfall 003) is located off Water Road in the Hamlet of Nicholville and is permitted for 17,000 gpd (0.0170 MGD). These systems each consist of septic tanks followed by a mound system with four filter beds. The effluent at each site discharges to groundwater, but there is also a curtain drain around the mounds which discharges to nearby ditches.

The North Lawrence East site (Outfall 002) is located at the end of Factory Street in the Hamlet of North Lawrence and is permitted for 25,700 gpd (0.0257 MGD). This system consists of septic tanks followed by four sand filters. The system also includes a chlorine tablet feeder for seasonal disinfection. Effluent is discharged through an 8-inch PVC pipe to an unnamed tributary to the Deer River which then flows approximately 260 feet before entering the Deer River.

Sludge is pumped from the septic tanks and hauled to another wastewater treatment facility for treatment.

The permittee is required to complete improvements/upgrades to the wastewater treatment facilities at Outfall 001 and Outfall 002 under a Consent Order (see Enforcement History). As a result, the Town has requested to combine the wastewater treatment plant sites at North Lawrence West (Outfall 001) and North Lawrence East (Outfall 002) into one new wastewater treatment facility and to adjust the Outfall 002 location to discharge directly to the Deer River. The new facility would be located at the North Lawrence East (Outfall 002) site and the wastewater from the North Lawrence West (Outfall 001) site would be pumped to the new wastewater treatment facility. To reflect this, the permit contains final effluent limitations for Outfall 002, with interim limitations specified in both the Schedule of Compliance and the interim requirements under the Consent Order. Interim effluent limitations for Outfall 001 are also specified in the Schedule of Compliance.

Site Overview

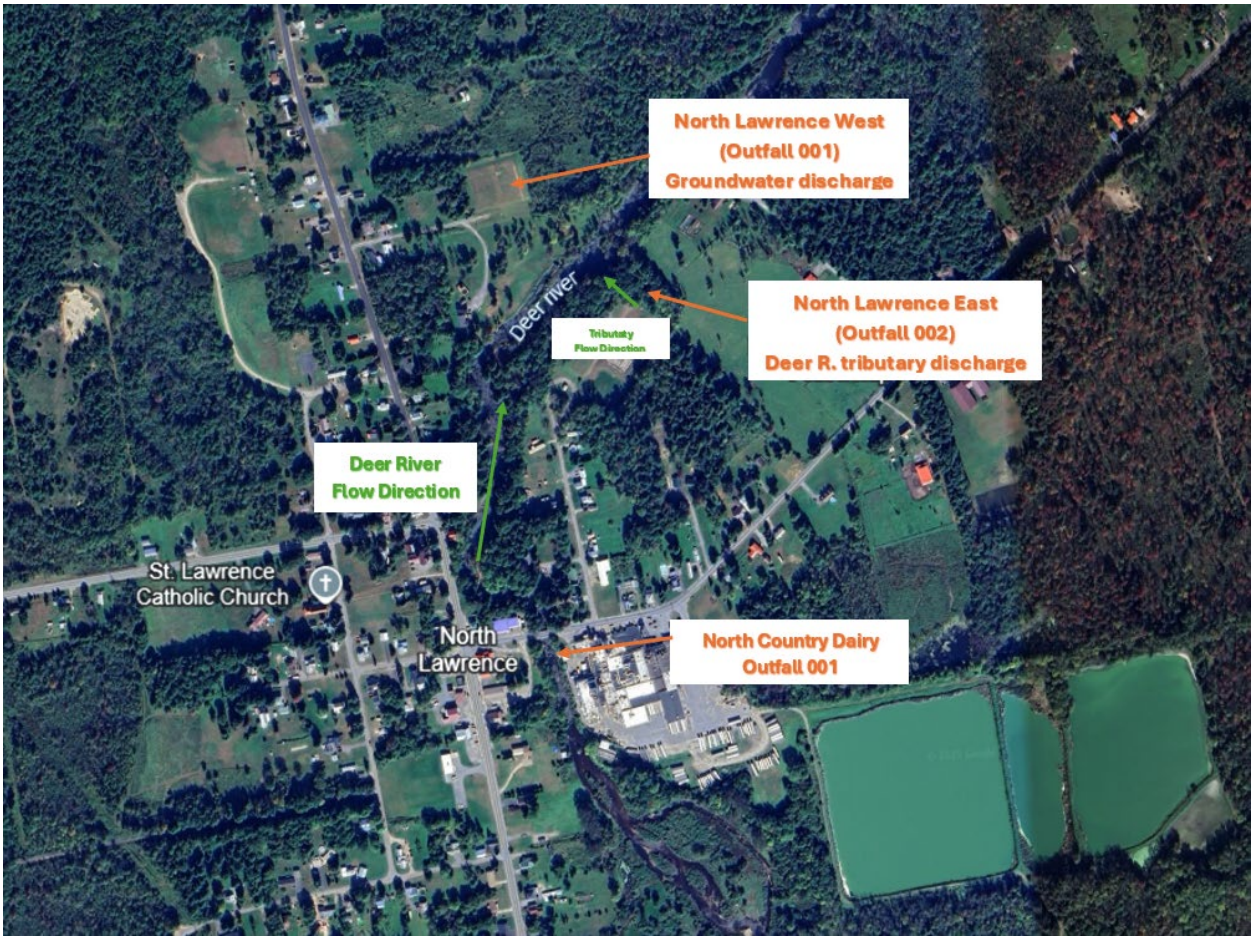


Figure 1: Overview of the Hamlet of North Lawrence. The Town of Lawrence municipal wastewater treatment plant sites are located to the north of the hamlet. There is an industrial facility, North Country Dairy (NY0002763, ~0.33 mi upstream), located in the hamlet as well, with their own wastewater treatment plant.

Figure 2: Overview of the Hamlet of Nicholville.

Enforcement History

The facility is operating under Order on Consent R6-20241017-40 dated October 21, 2025. The Order requires the following compliance actions:

Completed Items:

- Comply with the interim effluent limitations at Outfall 002 (North Lawrence East) until the corrective actions are complete – Due date is immediately.
- Correct the Discharge Monitoring Reports from January 2022 to present – Due date was October 31, 2025, and has been completed.
- Install temporary fencing at Outfall 002 (North Lawrence East) to prevent public access and exposure – Due date was October 17, 2025, and has been completed.

Ongoing Items:

- Submit a revised Engineering Report, prepared by a NYS professional engineer, for review and approval by DEC, to include a comprehensive evaluation of existing systems at all three treatment facilities. The evaluation shall identify deficiencies, recommendations, proposed schedule, and any interim measures required to obtain compliance with the SPDES permit – Due date is March 31, 2026.
- Submit final design plans and specifications, basis of design, and implementation schedule – Due date is October 31, 2027.
- Submit the construction completion letter for the improvements to the wastewater treatment system – Due date is December 31, 2028.

Interim limits were included in the Consent Order for Outfall 002 (North Lawrence East). Additional interim limits are provided in this SPDES permit as part of the Schedule of Compliance.

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 and the NY-2A application submitted by the permittee for the period of 2020 to 2025. Appendix Link

Receiving Water Information

The SPDES permit includes discharges via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001 (interim requirements until closure)	4952	Treated Sanitary Sewage	Groundwater
002 (interim requirements until upgrade)	4952	Treated Sanitary Sewage	Unnamed Tributary of the Deer River, Class B*
002 (proposed upgrade will include 001)	4952	Treated Sanitary Sewage	Deer River, Class B
003	4952	Treated Sanitary Sewage	Groundwater

*Consistent with 6 NYCRR 701.1, Class B standards were used for the evaluation of water quality to be protective of the downstream Class B Deer River.

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

Outfall 002 Impaired Waterbody Information

The Deer River segment (PWL No. 0902-0097) is not listed on the 2020/2022 New York State Section 303(d) List of Impaired/TMDL Waters. As such, a TMDL has not been developed and therefore, there are no applicable wasteload allocations (WLAs) for this facility.

Existing Deer River Concerns: After receiving public inquiries about algae growth in the Deer River, DEC's Monitoring and Assessment Section, in collaboration with Region 6, conducted a survey of the river in the summer of 2024 to evaluate water quality conditions and attempt to isolate impacts from permitted discharges.

DEC staff conducted additional monitoring on 6/4/2024 at five (5) locations along the Deer River, two (2) locations upstream of North Country Dairy, one (1) location between North Country Dairy and the North Lawrence and Nicholville Sewage Treatment Plant (Outfall 002 discharge location), and two (2) locations downstream of the facilities.

Sampling results and additional information may be found at DEC's Ongoing Special Studies: Deer River Investigation website.

Outfall 002 Critical Flow Conditions

Reach Description:

Outfall 002 discharges to the Class B segment of the Deer River (SL(C)-32-6). There are two permitted discharges upstream of the permitted North Lawrence & Nicholville Outfall 002 discharge location: the North Country Dairy facility (NY0002763, 1.85 MGD) located approximately 0.33 miles upstream, and a Concentrated Animal Feeding Operation (CAFO) approximately 4.5 miles upstream. Downstream from the facility there are no additional permitted point source discharges, and the Deer River continues to flow north until it joins the St. Regis River (Figure 6).

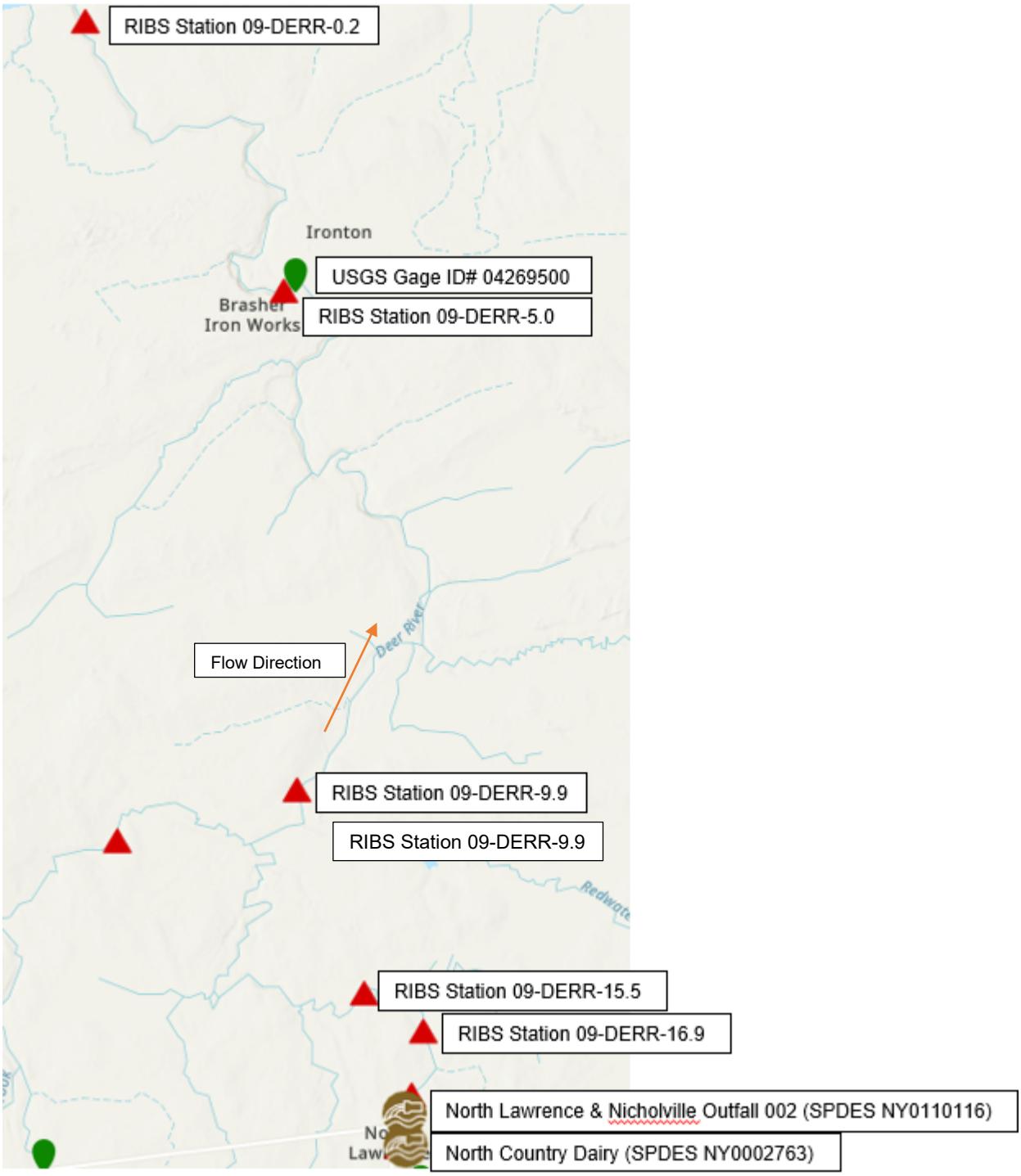


Figure 6: Map of North Lawrence & Nicholville Outfall 002 and surrounding notable locations including the

upstream North Country Dairy (SPDES ID: NY0002763), the downstream USGS Gage at Brasher Iron Works (Gage ID#04269500), and each RIBS station along the Deer River (Note: RIBS Station 09-DERR-0.2 is the only sampling point with >2 data points and was used for ambient values in this permit review).

The low flow condition for the Deer River was obtained from a drainage basin ratio analysis with USGS gage station ID# 04269500, Deer River at Brasher Iron Works, located approximately 11 miles downstream from the facility. While the upstream USGS gage station ID# 04269043 in North Lawrence, NY is closer to the facility, it does not have sufficient data available to calculate low flow statistics. The 1Q10, 7Q10 and 30Q10 flows at the gage were calculated in the USGS Hydrologic Toolbox software via an analysis of data from 1913 to 1968.

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

DRAINAGE BASIN RATIO	**1Q10**	**7Q10**	**30Q10**
Gage Name	Deer River at Brasher Iron Works		
Gage ID Number		ID # 04269500	
Low Flow at Gage (cfs)	23.22	30.95	35.81
Drainage Area at Gage (mi^2)	194	194	194
Drainage Area at Facility (mi^2)	87.4	87.4	87.4
Drainage Basin Ratio (facility / gage)	0.5	0.5	0.5
Calculated Flow at Facility (cfs)	10.46	13.94	16.13

Additional flow was added to the low flow values at the North Lawrence East (Outfall 002) location to better represent ambient conditions. This additional flow was calculated as the average monthly average of the nearby upstream facility.

Low Flow with Additional Added Flow	1Q10	7Q10	30Q10
Calculated Flow in cubic feet per second (cfs)	11.45	14.93	17.08

Outfall 002 Mixing Zone

Due to the proposed relocation and new Outfall structure moving the final discharge point for the facility from a location in an unmapped tributary of the Deer River to a location within the Deer River, and consistent with TOGS 1.3.1, a site-specific mixing zone model was developed and used to establish dilution ratios for conducting the water quality analysis for the proposed facility. Information submitted by the permittee found in the detailed mixing zone form was used to inform the model.

Proposed Outfall 002 is a pipe that extends 286 feet (ft) northeast from the existing chlorine contact tank shown below in Figure 7. The diffuser consists of an 8” pipe protruding perpendicularly 0.5 ft over Deer River and, during low flow conditions, is 1.8 ft vertically above the surface of the water. The facility is proposing to discharge 0.036 MGD with an effluent water temperature of 59°F The model assumed a 2” port opening as when compared to partial pipe flow of an 8” port the velocities were comparable and yield similar results.

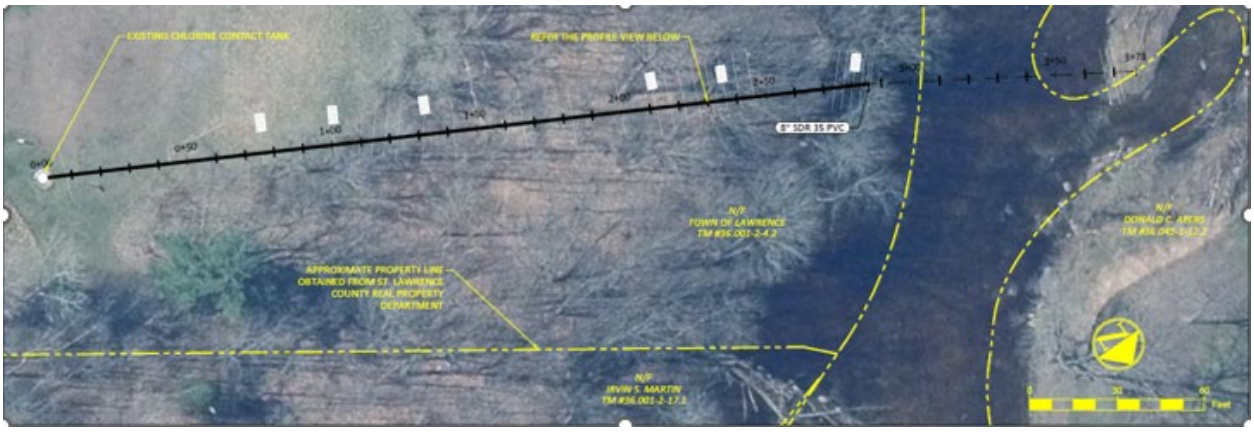


Figure 7: Proposed 8” Outfall 001 to Deer River.

A HEC-RAS model was developed using the river profile provided in the detailed mixing form (see Figure 8). An average depth of 0.286 ft and depth at discharge of 0.22 ft were calculated from the water surface and river bottom with HEC-RAS. The model used an ambient temperature of 68°C taken from the detailed mixing zone form. This model was used to establish appropriate ambient inputs based on low flow conditions in Deer River.

The CORMIX model width was bounded by 25 ft per the HEC-RAS model cross section profile to account for areas with similar depths. The river velocity of this rectangular area was then taken from the HEC-RAS Model (see Figure 9). This velocity was then averaged across the rectangle resulting in a velocity of approximately 1.29 feet per second (fps).

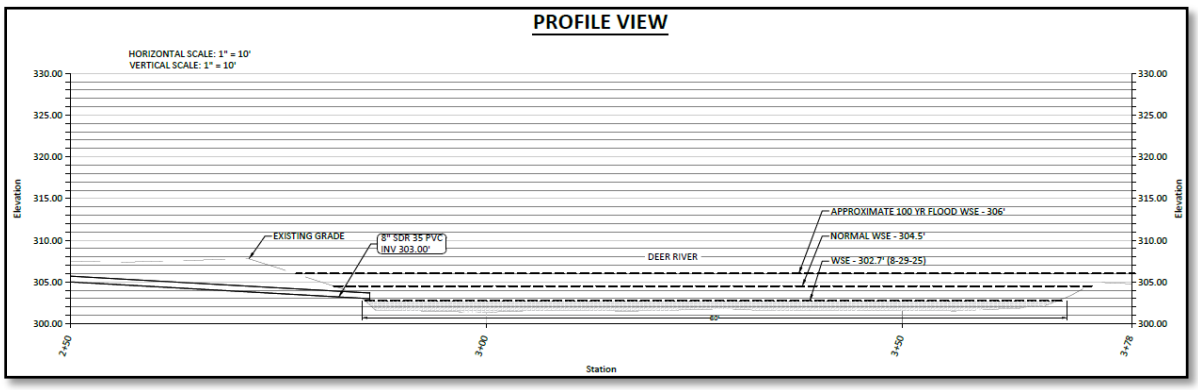


Figure 8. Deer River Cross Sections Profile View.

The profile was measured on 8/29/25 which was most likely not during a time in which a statistical low flow (1Q10, 7Q10, or 30Q10) would have occurred. Based on a low flow of 13.94 CFS the following cross section was generated (see below in Figure 9).

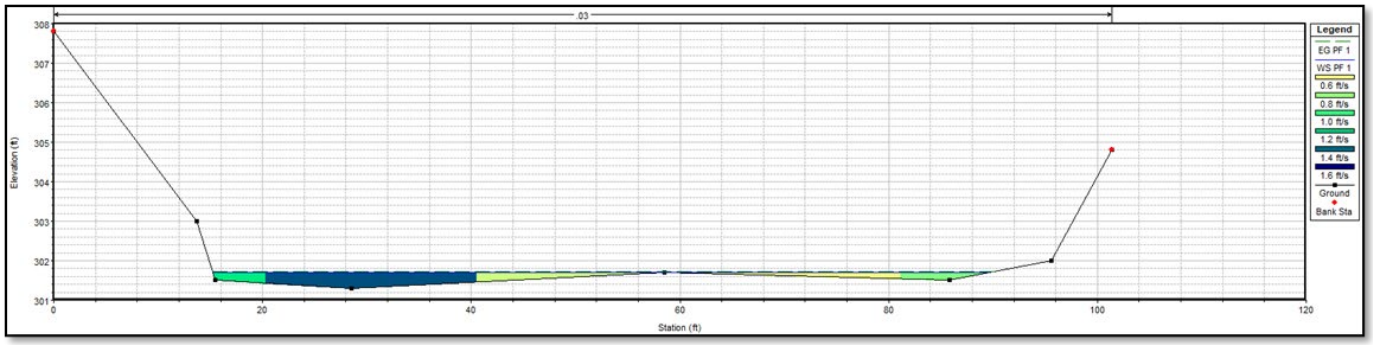


Figure 9. HEC-RAS Cross Section Low Flow Profile View.

This cross-section was then used to inform the following CORMIX model parameters: average depth, depth at discharge, ambient velocity, bounded width, distance to nearest bank, and effluent pipe distance above water surface.

The CORMIX model showed the mixing is largely constrained by the minimal availability of ambient water with the plume appearing to crash into the riverbed and lose all velocity, causing minimal mixing to occur. Additionally, due to the minimal horizontal energy, the plume does not have a chance to horizontally mix across the river which greatly limits mixing. Density does not appear to be driving dilution as the river is too shallow and the plume appears to vertically mix rapidly.

As per the *EPA Technical Support Document for Water Quality-Based Toxics Controls* (TSD) the acute dilution was set at the end of the acute mixing zone established at a distance of 5 times the local water depth. This method was selected as it was the most reasonable option for the outfall when compared to other methods outlined in the TSD. The chronic and human, aesthetic, wildlife (HEW) dilution ratios were set at 5 times the downstream distance of the acute mixing zone at low flow.

Outfall No.	Acute Dilution Ratio A(A)	Chronic Dilution Ratio A(C)	Human, Aesthetic, Wildlife Dilution Ratio (HEW)	Basis
002	1.5	3.0	3.0	TOGS 1.3.1 CORMIX

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

Permit Requirements

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

Whole Effluent Toxicity (WET) Testing

None of the seven criteria outlined in TOGS 1.3.2 that are indicative of potential toxicity are applicable to this facility; therefore, WET testing has not been included in the permit. Appendix Link

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)[1] determination.
Appendix Link

Discharge Notification Act Requirements

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

Additionally, this permit continues the requirement from the previous permit to make the DMR sampling data available to the public upon request.

Mercury

The DOW 1.3.10 Mercury – Multiple Discharge Variance (MDV), dated December 31, 2025, provides the framework for DEC to require mercury monitoring and mercury minimization programs (MMPs), through SPDES permitting. The following permit conditions are consistent with the MDV. Appendix Link

The facility is located outside of the Great Lakes Basin and is a SPDES Class 07. The permittee submitted a Conditional Exclusion Form on 5/8/2025, certifying Outfall 002 does not have a mercury source as listed in Part III.E. of the MDV. Therefore, consistent with the MDV, the permit includes requirements for the implementation of MMP Type IV. The Schedule of Additional Submittals includes a mercury minimization plan annual status report (maintained onsite), and re-certification of the exclusion every five years. This requirement is new to this permit.

Outfalls 001 and 003 discharge to groundwater and are required to meet the groundwater effluent limitations promulgated in 6 NYCRR 703.6 at end-of- pipe. Therefore, the MDV, which applies to facilities discharging to surface water, does not apply.

Schedule of Compliance

A Schedule of Compliance has been included[2] in this permit referencing the required submissions from Order R6-20241017-40, but all compliance deadlines established in the Order have been maintained. The included schedule also contains interim limits for both Outfall 001 and 002 until such time as construction of the proposed facility has been completed.

The Schedule of Compliance also contains, consistent with 6 NYCRR 750-2.11(c)(1), the requirement to submit a closure plan for Outfall 001 prior to the completion of the construction of the new North Lawrence East facility (Outfall 002) that will be receiving the Outfall 001 flows after being upgraded. Appendix Link

[1] As prescribed by 6 NYCRR Part 617
[2] Pursuant to 6 NYCRR 750-1.14

Emerging Contaminant Monitoring

Outfall 002 North Lawrence East:

Based on the available data at Outfall 002, the permit includes Action Levels for Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonic Acid (PFOS). The Action Levels are set at the NYS Department of Health (DOH) Maximum Contaminant Level (MCL) of 10 ng/L for drinking water as a proxy for background concentrations in the facility's influent. Discharges above the MCL indicate the potential presence of a controllable source beyond drinking water and the need to implement track down measures. Pursuant to 6 NYCRR 750-1.13(b), the SPDES permit also requires monitoring for the remaining 38 PFAS compounds. Those monitoring requirements are consistent with guidance released in EPA memos dated April 28, 2022, and December 5, 2022. Please see the Pollutant Summary Table below and Appendix Link for more information.

Outfalls 001 North Lawrence West and Outfall 003 Nicholville:

Consistent with 6 NYCRR 750-1.13(b), the permit includes a short-term monitoring program listed in the Schedule of Additional Submittals to evaluate the influent and effluent discharge levels of Per-and Polyfluoroalkyl Substances (PFAS). As the sampling conducted was performed at the curtain drain additional information is needed to evaluate if this is representative of treated effluent and a short-term monitoring program has been included in the Schedule of Additional Submittals. While it is understood that Outfall 001 will be decommissioned as part of the upgrade project and combined with Outfall 002, the monitoring requirement has still been added at Outfall 001 to help inform the impact to the action levels given at Outfall 002. This monitoring program is consistent with guidance released in EPA guidance memos dated April 28, 2022, and December 5, 2022.

In accordance with 6 NYCRR 750-1.13(d), the permittee must report results of the emerging contaminant short-term monitoring program through the "Emerging Contaminants Survey for POTWs" and on the provided monitoring template, which can be found at this link: Emerging Contaminants In NY's Waters - NYSDEC.

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

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

Appendix Link

Schedule of Additional Submittals

Emerging Contaminant Minimization Program

Please see above discussion of emerging contaminants.

WTC Annual Report

In accordance with 6 NYCRR 750-2.1(i), the permittee must submit an annual report summarizing the WTCs that the permittee discharged during the prior calendar year, January 1 through December 31. The permittee must attach the annual report either to the December DMR or annual monitoring report required by the permit. More information is located on the DEC's website under SPDES Permitting of Water Treatment Chemicals.

Annual Flow Certification

In accordance with 6 NYCRR 750-2.9(c)(4), the chief fiscal officer of the municipality shall submit an Annual Flow Certification form, located on DEC's website at wastewater forms, as an attachment to the February DMR or through nForm.

Mercury Conditional Exclusion Certification

Please see above discussion of mercury. Consistent with DOW 1.3.10 and 6 NYCRR 750-1.14(f), the permittee must submit the Conditional Exclusion Certification form for Outfall 002, signed in accordance with 6 NYCRR 750-1.8, every five years certifying that the facility is neither a mercury source nor receives flow from a mercury source.

Mercury Minimization Plan (MMP) and Status Report

Please see above discussion of MMP and, in accordance with 6 NYCRR 750-1.14(f), the required annual Status Report.

Special Conditions

1. **Construction Commencement:** Consistent with 6 NYCRR 750-2.10(b), the permittee is not authorized to begin construction on a new or modified treatment system until they have received written approval of the system from DEC.
2. **Commencement of Operation:** Consistent with 6 NYCRR 750-2.10(c), upon completion of construction, the engineer or firm responsible for the general supervision of the construction shall certify to the department that the treatment system has been fully constructed in accordance with the approved engineering report, plans and specs, permit, and letter of approval. Prior to commencing discharge from the facility, the permittee must have received written acceptance of the aforementioned certificate of completion.
3. **Closure Requirements for Outfall 001:**
    a. Consistent with 6 NYCRR 750-2.11(c)(1)(ii), the permittee must provide written notification to the Regional Water Engineer concerning any actual or potential discharges to groundwater that may exist at the site being closed.
    b. Consistent with 6 NYCRR 750-2.11(c)(2), the permittee must properly manage and/ or remove all residual materials, filter media, and all other solids from the treatment processes that may remain in the treatment works within 180 days from the date the system is taken out of service. Proof of arrangements for management of the waste materials by an operation(s) permitted to manage the respective waste materials must be submitted within 30 days of their removal with dates and quantities specified in the notification.
    c. Consistent with 6 NYCRR 750-2.11(d), upon completion of the requirements outlined in 6 NYCRR 750-2.11(c), the permittee is required to submit written notification to the Regional Water Engineer to schedule a final site inspection at the location that will be the former permitted Outfall 001 site.

OUTFALL AND RECEIVING WATER SUMMARY TABLE

Outfall	Latitude	Longitude	Receiving Water Name	Water Class	Water Index No. / Priority Waterbody Listing (PWL) No.	Major / Sub Basin	Hardness (mg/L)	1Q10 (MGD)	7Q10 (MGD)	30Q10 (MGD)	Critical Effluent Flow (MGD)	Dilution Ratio		
												A(A)	A(C)	HEW
001	44° 48' 36" N	74° 40' 38" W	Groundwater	GA	-	09/02	-	-	-	-	0.0103	-	-	-
002 (interim)	44° 48' 31" N	74° 40' 30" W	Unnamed Tributary of the Deer River	B*	WIN: SL(C)-32-6 PWL: 910-222	09/02	-	-	-	-	0.0257	-	-	-
002 (final)	44° 48' 32" N	74° 40' 33" W	Deer River	B	WIN: SL(C)-32-6 PWL: 910-222	09/02	60[3]	7.4	9.65	11.04	0.036	1.5	3.0	3.0
003	44° 41' 60" N	74° 39' 36" W	Groundwater	GA	-	09/02	-	-	-	-	0.0170	-	-	-

*Consistent with 6 NYCRR 701.1, Class B standards were used for the evaluation of water quality to be protective of the downstream Class B Deer River.

POLLUTANT SUMMARY TABLE

Outfall 001: North Lawrence West Interim Limitations (Groundwater)

Outfall #	001	**Description of Wastewater:** Treated sanitary wastewater														
		Type of Treatment: Septic tanks and mound filters														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[4]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
General Notes: Existing discharge data from 2020 to 2025 was obtained from Discharge Monitoring Reports and the NY-2A application provided by the permittee and has been summarized below. The proposed upgrade project for the North Lawrence East facility (Outfall 002) also includes rerouting the flow from the North Lawrence West facility (Outfall 001) to the upgraded North Lawrence East location (see Site Overview section). As such, Outfall 001 final limitations have been removed from the permit and the values below will be continued in this permit as interim limits.															
Flow Rate	MGD	Monthly Average	0.0103	0.0085 Actual Average	5/0	**0.0103**	Design Flow	-	-	-	-	-	-	-	Design Flow

[3] Ambient hardness was calculated as an average from RIBs station 09-DERR-0.2, located ~13 miles downstream, using 16 samples collected from 2005 – 2015.

[4] Existing Effluent Quality: Unless otherwise stated, Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)

Outfall #	001	**Description of Wastewater:** Treated sanitary wastewater **Type of Treatment:** Septic tanks and mound filters														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[4]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
5-day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)	mg/L	Daily Maximum	**Monitor**	240* (BOD_5) Actual Maximum	3/2	-	-	-	-	-	-	-	-	-	Monitor 750 -1.13(a) Change to BOD_5
	Outfall 001 discharges to groundwater and, consistent with 6 NYCRR 703.3 and 6 NYCRR 703.6, does not have an applicable dissolved oxygen water quality standard. Monitoring will continue to help inform the design of the upgraded treatment system. The interim limit for $CBOD_5$ will be updated to BOD_5 as the permittee has been incorrectly reporting BOD_5 as $CBOD_5$ on their DMR reports and BOD_5 represents a more complete measure of oxygen demand as it includes both the carbonaceous and nitrogenous oxygen demands. *Previous permit required $CBOD_5$ sampling, but the permittee has been reporting BOD_5. Values represented here are in BOD_5.														
Total Suspended Solids (TSS)	mg/L	Daily Maximum	**Monitor**	38 Actual Maximum	3/2	-	-	-	-	-	-	-	-	-	Monitor 750 -1.13(a)
Additional Pollutants Detected															
Total Mercury	µg/L	Daily Max	-	0.06	3*	-	-	-	0.17	1.4	GW Effluent Limitation	No Reasonable Potential	703.6	-	No Limitation or Monitoring
	The projected instream concentration was calculated using the maximum reported effluent concentration of 0.058 µg/L, a multiplier of 3, and an assumed negligible ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 to account for the number of samples. A comparison of the projected instream concentration to the groundwater effluent limitation indicates no reasonable potential to cause or contribute to n exceedance. Therefore, no limitations or monitoring is necessary. *Unknown number of detect and non-detect results														

Outfall 001: Emerging Contaminants

Emerging Contaminants: Outfall 001

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Notes: See Emerging Contaminant Monitoring section above. Effluent samples represented below were submitted with the NY-2A application. As such, the number of detects/nondetects is unknown. Existing effluent quality value shown below represents the maximum discharge value reported.															
Perfluoro-butanoic Acid (PFBA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
Perfluoro-pentanoic Acid (PFPeA)	ng/L	Daily Max	-	14.8	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
Perfluoro-hexanoic Acid (PFHxA)	ng/L	Daily Max	-	9.7	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
Perfluoro-heptanoic Acid (PFHpA)	ng/L	Daily Max	-	3.2	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
Perfluoro-octanoic Acid (PFOA)	ng/L	Daily Max	-	11.9	2	-	-	-	-	6.7	GW Effluent Limitation	-	TOGS 1.1.1 (February 2023 Addendum)	-	STM 750-1.13(b)
	The maximum measured effluent concentration exceeds the groundwater effluent limitation, however given the upcoming project and closure of Outfall 001, flows will eventually be sent to Outfall 002 and long-term track-down and monitoring will be done as part of the action level requirements at Outfall 002. In the meantime, the permit includes a short-term monitoring program at Outfall 001 to inform the future Outfall 002 track down.														
Perfluoro-nonanoic Acid (PFNA)	ng/L	Daily Max	-	2.3	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
Perfluoro-decanoic Acid (PFDA)	ng/L	Daily Max	-	2.8	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
Perfluoro-undecanoic Acid (PFUnA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
Perfluoro-dodecanoic Acid (PFDoA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
Perfluoro-tridecanoic Acid (PFTriA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)

Emerging Contaminants: Outfall 001

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Perfluoro-tetradecanoic Acid (PFTeA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
Perfluoro-butanesulfonic Acid (PFBS)	ng/L	Daily Max	-	10	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
Perfluoro-pentanesulfonic Acid (PFPeS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
Perfluoro-hexanesulfonic Acid (PFHxS)	ng/L	Daily Max	-	2.8	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
Perfluoro-heptanesulfonic Acid (PFHpS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
Perfluoro-octanoic Acid (PFOS)	ng/L	Daily Max	-	31.4	2	-	-	-	-	2.7	GW Effluent Limitation	-	TOGS 1.1.1 (February 2023 Addendum)	-	STM 750-1.13(b)
	The maximum measured effluent concentration exceeds the groundwater effluent limitation, however given the upcoming project and closure of Outfall 001, flows will eventually be sent to Outfall 002 and long-term track-down and monitoring will be done as part of the action level requirements at Outfall 002. In the meantime, the permit includes a short-term monitoring program at Outfall 001 to inform the future Outfall 002 track down.														
Perfluoro-nonanesulfonic Acid (PFNS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
Perfluoro-decanesulfonic Acid (PFDS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
Perfluoro-dodecane-sulfonic Acid (PFDoS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
Perfluoro-octane-sulfonamide (FOSA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)

Emerging Contaminants: Outfall 001

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
N-methyl Perfluoro-octanesulfon-amidoacetic Acid (NMeFOSAA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
N-ethyl Perfluoro-octanesulfon-amidoacetic Acid (NEtFOSAA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
4:2 Fluorotelomer Sulfonic Acid (FTS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
6:2 Fluorotelomer Sulfonic Acid (FTS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
8:2 Fluorotelomer Sulfonic Acid (FTS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
N-ethyl Perfluoro-octanesulfon-amide (NEtFOSA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
N-methyl Perfluoro-octanesulfon-amide (NMeFOSA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
N-methyl Perfluoro-octanesulfon-amidoethanol (NMeFOSE)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)

Emerging Contaminants: Outfall 001

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
N-ethyl Perfluoro-octanesulfon-amidoethanol (NEtFOSE)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
9-Chlorohexadeca-fluoro-3-oxanonane-1-sulfonic Acid (9Cl-PF3ONS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
Hexafluoro-propylene Oxide Dimer Acid (HFPO-DA or GenX)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic Acid (11Cl-PF3OUdS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
4,8-Dioxa-3H-perfluorononanoic Acid (ADONA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
3-Perfluoropropyl Propanoic Acid (3:3 FTCA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
2H,2H,3H,3H-Perfluoro-octanoic Acid (5:3 FTCA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)

Emerging Contaminants: Outfall 001

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
3-Perfluoroheptyl Propanoic Acid (7:3 FTCA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
Nonafluoro-3,6-dioxaheptanoic Acid (NFDHA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
Perfluoro-4-methoxy-butanoic Acid (PFMBA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
Perfluoro-3-methoxy-propanoic Acid (PFMPA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
Perfluoro(2-ethoxyethane)sulfonic Acid (PFEESA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
1,4-Dioxane	µg/L	Daily Max	-	ND	2	-	-	-	-	0.35	GW Effluent Limitation	0.35	TOGS 1.1.1 (February 2023 Addendum)	-	No Limitation or Monitoring
	All reported effluent values for 1,4- Dioxane are non-detect. Therefore, no limitation or monitoring is necessary at this Outfall.														

Outfall 002: North Lawrence East Final Limitations (Deer River)

Outfall #	002	**Description of Wastewater:** Treated Sanitary Sewage **Type of Treatment:** Septic Tank, Sand Filter, Chlorine Disinfection													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data: Permit Limit	Existing Discharge Data: Existing Effluent Quality[5]	Existing Discharge Data: # of Data Points Detects / Non-Detects	TBELs: Limit	TBELs: Basis	Water Quality Data & WQBELs: Ambient Bkgd. Conc.	Water Quality Data & WQBELs: Projected Instream Conc.	Water Quality Data & WQBELs: WQ Std. or GV	Water Quality Data & WQBELs: WQ Type	Water Quality Data & WQBELs: Calc. WQBEL	Water Quality Data & WQBELs: Basis	ML	Basis for Permit Requirement
General Notes: Existing discharge data from 2020 to 2025 was obtained from Discharge Monitoring Reports and the NY-2A provided by the permittee. All applicable water quality standards were reviewed for development of the WQBELs. The standard and WQBEL shown below represent the most stringent. The permittee is proposing an upgraded facility at the Outfall 002 treatment plant location that will combine the flows from Outfall 001 and Outfall 002 (see Site Overview section). Due to this proposed upgrade, limits from the previous permit for Outfall 002 have been continued as interim limits under the Schedule of Compliance. Permit limits shown below will be final limits for the upgraded facility effective upon completion of construction.														
Flow Rate	MGD	Monthly Average	0.0257	0.0175 Actual Average	20/20	**0.036**	Design Flow	No alterations that will impair the waters for their best usages.					703.2	-	Design Flow
	Consistent with 40 CFR 122.45 and TOGS 1.3.3, a monthly average flow limitation equal to the sum of the existing flow limitations for Outfall 001 and Outfall 002 has been included. This is also equal to the proposed average daily design capacity of the upgraded treatment plant.														
pH	SU	Minimum	6.0	6.5 Actual Min	20/20	6.0	40 CFR 133.102	7.9[6]	-	6.5 – 8.5	Range	**6.5 - 8.5**	703.3	-	WQBEL
		Maximum	9.0	7.9 Actual Max	19/20	9.0									
	Given the available dilution, pH effluent limitations equal to the WQS are appropriate and have been included in this permit.														
Dissolved Oxygen (DO) (DO)	mg/L	Daily Min	-	-	-	-	-	-	6.32 Critical Point	4.0 mg/L		No Reasonable Potential	703.3	-	No Limitation or Monitoring
	The downstream DO concentration was modeled using the Streeter-Phelps equations and the following assumptions: Effluent DO = 2 mg/lL(assumed value consistent with TOGS 1.3.1D), Effluent $cBOD_5$ = 40 mg/L (permitted BOD_5 limit reduced by 5 for $CBOD_5$ consistent with TOGS 1.3.3), Effluent NOD = 73 mg/L (estimated value equal to 10mg/L ammonia for conventional activated sludge systems). The model showed that DO standards are maintained and the TBELs for BOD_5 are protective of the dissolved oxygen water quality standard. Reach Description: The dissolved oxygen model also included the North Country Dairy WWTP NY0002763 located approximately 0.33 miles upstream from the facility and the confluence with the Trout Brook approximately 5 miles downstream from the facility.														

[5] Existing Effluent Quality: Unless otherwise stated, Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)
[6] Ambient pH calculated as the average of 16 samples collected from RIBs station 09-DERR-0.2, located ~13 miles downstream during the period of 1997 – 2019.

Outfall #	002	**Description of Wastewater:** Treated Sanitary Sewage
		Type of Treatment: Septic Tank, Sand Filter, Chlorine Disinfection

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[5]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
5-day Biochemical Oxygen Demand (BOD_5)	mg/L	Monthly Average	30	15 Actual Maximum	5/5	**30**	40 CFR 133.102	-	See Dissolved Oxygen for Surrogate Standard			-	703.3	-	TBEL
		7 Day Average	45	16 Actual Maximum	4/6	**45**	40 CFR 133.102					-			
	lbs/d	Monthly Avg	6.4	6.4 Actual Maximum	5/5	**9.0***	-					-			
		7 Day Avg	9.6	7.8 Actual Maximum	5/5	**14***	-					-			
	% Rem	Minimum	85	85 Actual Minimum	6/0	**85**	40 CFR 133.102					-			
	Consistent with 40 CFR Part 133.102 and TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. See justification for Dissolved Oxygen. *Load values calculated using the formula: load(lbs/d)=flow(MGD)*concentration(mg/L)*8.34 where flow is the design flow of the plant, concentration is the applicable concentration, and 8.34 is the constant for the weight of water. The facility is currently operating under Order on Consent number R6-20241017-40, which contains interim limits for BOD_5.															
Total Suspended Solids (TSS)	mg/L	Monthly Average	30	39 Actual Maximum	3/7	**30**	40 CFR 133.102	-	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.				703.2	-	TBEL
		7 Day Average	45	39 Actual Maximum	3/7	**45**	40 CFR 133.102								
	lbs/d	Monthly Average	6.4	5.2 Actual Maximum	6/4	**9.0***	-								
		7 Day Average	9.6	9.6 Actual Maximum	6/4	**14***	-								
	% Rem	Minimum	85	67	5/1	**85**	40 CFR 133.102								
	Consistent with 40 CFR Part 133.102 and TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. Given available dilution, an effluent limitation equal to the TBEL is protective of water quality standards. *Load values calculated using the formula: load(lbs/d) = flow(MGD)*concentration(mg/L)*8.34 where flow is the design flow of the plant, concentration is the applicable concentration, and 8.34 is the constant for the weight of water. The facility is currently operating under Order on Consent number R6-20241017-40, which contains interim limits for TSS.															

Outfall #	002	**Description of Wastewater:** Treated Sanitary Sewage **Type of Treatment:** Septic Tank, Sand Filter, Chlorine Disinfection													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[5]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Settleable Solids	mL/L	Daily Maximum	0.1	0.1	18/2	**0.1**	TOGS 1.3.3	-	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages				703.2	-	TBEL
	Consistent with TOGS 1.3.3 the effluent limitation will continue to equal the TBEL of 0.1 mL/L for POTWs providing secondary treatment and filtration. Given available dilution, the TBEL is expected to be protective of the WQS. The facility is currently operating under Order on Consent number R6-20241017-40, which contains interim limits for settleable solids.														
Coliform, Fecal	#/100 ml	30d Geo Mean	200	24,196 Actual Maximum	8/2	**200**	TOGS 1.3.3	-	The monthly geometric mean, from a minimum of five examinations, shall not exceed 200.				703.4	-	TBEL
		7d Geo Mean	400	124,196 Actual Maximum	8/1	**400**	TOGS 1.3.3	-							
	Consistent with TOGS 1.3.3, effluent disinfection will continue to be required seasonally from May 1st - October 31st, due to the class of the receiving waterbody. The facility is currently operating under Order on Consent number R6-20241017-40, which contains interim limits for both the 30-day geometric mean and 7-day geometric mean limits.														
Total Residual Chlorine (TRC)	mg/L	Daily Max	2.0	1.2 Actual Maximum	10/0	2.0	TOGS 1.3.3	-	-	0.005	A(C)	0.015	703.5	**0.03**	ML
	Effluent disinfection is currently required seasonally and has been continued in this permit. The WQBEL was calculated from the WQS and the chronic dilution ratio. The calculated WQBEL is less than the existing limitation and the minimum level of detection (ML). Therefore, an effluent limitation equal to the minimum level of detection is appropriate.														
Additional Pollutants Detected															
Total Mercury	ng/L	Daily Maximum	-	4.7	3*	-	-	-	-	0.7	H(FC)	-	-	-	DOW 1.3.10
	See Mercury section of this fact sheet. MMP Type IV requirements have been included for Outfall 002. *Number of detects and non-detects unknown														

Outfall #	002	**Description of Wastewater:** Treated Sanitary Sewage **Type of Treatment:** Septic Tank, Sand Filter, Chlorine Disinfection													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[5]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Ammonia (as N) Summer (June 1st to October 31st)	mg/L	Monthly Average	-	-	-	-	-	0.3*	-	0.9	A(C)	**2.1**	703.5	-	WQBEL
	The WQS for Ammonia was determined from 6 NYCRR 703.5 from a pH of 7.9** and a summer temperature of 25°C. The temperature of the receiving waterbody was an assumed value consistent with TOGS 1.3.1E. The facility does not currently have either limits or monitoring for ammonia and effluent concentration is unknown. However, given the current septic tank and sand filter treatment, it is not expected that the facility will be able meet the ammonia concentration necessary to avoid a water quality concern. *Upstream ammonia concentration calculated from nearby discharges at low flow conditions. **Consistent with TOGS 1.3.1. E, pH was calculated as the 75th percentile of 16 samples collected from RIBS station 09-DERR-0.2, located ~13 miles downstream during the period of 1997-2019.														
Ammonia (as N) Winter (November 1st to May 31st)	mg/L	Monthly Average	-	-	-	-	-	0.4*	-	1.2	A(C)	**3.2**	703.5	-	WQBEL
	The WQS for Ammonia was determined from 6 NYCRR 703.5 from a pH of 7.9** and a winter temperature of 10°C. The temperature of the receiving waterbody was an assumed value consistent with TOGS 1.3.1E. The facility does not currently have either limits or monitoring for ammonia and effluent concentration is unknown. However, given the current septic tank and sand filter treatment, it is not expected that the facility will be able meet the ammonia concentration necessary to avoid a water quality concern. *Upstream ammonia concentration calculated from nearby discharges at low flow conditions. **Consistent with TOGS 1.3.1. E, pH was calculated as the 75th percentile of 16 samples collected from RIBS station 09-DERR-0.2, located ~13 miles downstream during the period of 1997-2019.														
Total Phosphorus	mg/L	Monthly Average	-	-	-	-	-	None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.					703.2	-	Monitor 750-1.13(a)
	lbs/d	Monthly Average	-	-	-	-	-								
	Consistent with 6 NYCRR 703.5 and TOGS 1.1.1, no numeric water quality standards exist for Total Phosphorus. However, there is an applicable narrative water quality standard in 703.2. Given the existing concerns in the Deer River (see Impaired Waterbody section), and consistent with 6 NYCRR 750-1.13(a), monitoring for concentration and load has been added to the permit for Total Phosphorus for the purpose of evaluating the facility's effluent quality.														

Outfall 002: Emerging Contaminants (Interim and Final Facility)

Emerging Contaminants: Outfall 002

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Notes: See Emerging Contaminant Monitoring section above. Effluent samples represented below were submitted with the NY-2A application. As such, the number of detects/nondetects is unknown. Existing effluent quality value shown below represents the maximum discharge value reported.															
Perfluoro-butanoic Acid (PFBA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
Perfluoro-pentanoic Acid (PFPeA)	ng/L	Daily Max	-	5.1	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
Perfluoro-hexanoic Acid (PFHxA)	ng/L	Daily Max	-	4.6	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
Perfluoro-heptanoic Acid (PFHpA)	ng/L	Daily Max	-	1.7	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
Perfluoro-octanoic Acid (PFOA)	ng/L	Daily Max	-	6.4	2	**10** Action Level	2PJ MCL	-	-	-	-	-	TOGS 1.1.1 (February 2023 Addendum)	-	Action Level
	Due to the presence of PFOA and PFOS, the permit includes an action level equal to the NYSDOH MCL of 10 ng/L. See the Emerging Contaminant Monitoring and Action Level sections for more information.														
Perfluoro-nonanoic Acid (PFNA)	ng/L	Daily Max	-	1.7	2	-	-	-	-	-	-	--	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
Perfluoro-decanoic Acid (PFDA)	ng/L	Daily Max	-	5.7	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														

Emerging Contaminants: Outfall 002

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Perfluoro-undecanoic Acid (PFUnA)	ng/L	Daily Max	-	2.3	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
Perfluoro-dodecanoic Acid (PFDoA)	ng/L	Daily Max	-	2.1	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
Perfluoro-tridecanoic Acid (PFTriA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
Perfluoro-tetradecanoic Acid (PFTeA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
Perfluoro-butanesulfonic Acid (PFBS)	ng/L	Daily Max	-	2.6	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
Perfluoro-pentanesulfonic Acid (PFPeS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
Perfluoro-hexanesulfonic Acid (PFHxS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
Perfluoro-heptanesulfonic Acid (PFHpS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														

Emerging Contaminants: Outfall 002

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Perfluoro-octanesulfonic Acid (PFOS)	ng/L	Daily Max	-	35.8	2	**10** Action Level	BPJ MCL	-	45	160,000	A(C)	No Reasonable Potential	TOGS 1.1.1 (February 2023 Addendum)	-	Action Level
The projected instream concentration was calculated using the maximum reported effluent concentration of 35.8ng/L, a multiplier of 3.8, the chronic dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 to account for the number of samples. A comparison of the projected instream concentration to the guidance value indicates no reasonable potential to cause or contribute to a water quality violation. However, due to the presence of PFOS, the permit includes an action level equal to the NYSDOH MCL of 10 ng/L. See the Emerging Contaminant Monitoring and Action Level sections for more information.															
Perfluoro-nonanesulfonic Acid (PFNS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.															
Perfluoro-decanesulfonic Acid (PFDS)	ng/L	Daily Max	-	5.2	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.															
Perfluoro-dodecane-sulfonic Acid (PFDoS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.															
Perfluoro-octane-sulfonamide (FOSA)	ng/L	Daily Max	-	2.4	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.															
N-methyl Perfluoro-octanesulfon-amidoacetic Acid (NMeFOSAA)	ng/L	Daily Max	-	18.1	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.															
N-ethyl Perfluoro-octanesulfon-amidoacetic Acid (NEtFOSAA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.															

Emerging Contaminants: Outfall 002

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
4:2 Fluorotelomer Sulfonic Acid (FTS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
6:2 Fluorotelomer Sulfonic Acid (FTS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
8:2 Fluorotelomer Sulfonic Acid (FTS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
N-ethyl Perfluoro-octanesulfon-amide (NEtFOSA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
N-methyl Perfluoro-octanesulfon-amide (NMeFOSA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
N-methyl Perfluoro-octanesulfon-amidoethanol (NMeFOSE)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
N-ethyl Perfluoro-octanesulfon-amidoethanol (NEtFOSE)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
9-Chlorohexadeca-fluoro-3-oxanonane-1-sulfonic Acid (9Cl-PF3ONS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														

Emerging Contaminants: Outfall 002

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Hexafluoro-propylene Oxide Dimer Acid (HFPO-DA or GenX)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic Acid (11Cl-PF3OUdS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
4,8-Dioxa-3H-perfluorononanoic Acid (ADONA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
3-Perfluoropropyl Propanoic Acid (3:3 FTCA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
2H,2H,3H,3H-Perfluoro-octanoic Acid (5:3 FTCA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
3-Perfluoroheptyl Propanoic Acid (7:3 FTCA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
Nonafluoro-3,6-dioxaheptanoic Acid (NFDHA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
Perfluoro-4-methoxy-butanoic Acid (PFMBA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														

Emerging Contaminants: Outfall 002

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Perfluoro-3-methoxy-propanoic Acid (PFMPA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
Perfluoro(2-ethoxyethane)sulfonic Acid (PFEESA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) and USEPA memos dated April 28, 2022, and December 5, 2022, the permit includes monitoring to support establishment of future standards or TBELs.														
1,4-Dioxane	µg/L	Daily Max	-	0.176	2	-	-	-	0.22	18,000	A(C)	No Reasonable Potential	TOGS 1.1.1 (February 2023 Addendum))	-	No Limitation or Monitoring
	The projected instream concentration was calculated using the maximum reported effluent concentration of 0.176µg/L, a multiplier of 3.80, the chronic dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, no WQBEL is needed.														

Outfall 003: Nicholville (Groundwater)

Outfall #	003	**Description of Wastewater:** Treated Sanitary Sewage														
		Type of Treatment: Septic Tank and Mound System														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[7]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
General Notes: Existing discharge data from 2020 to 2025 was obtained from Discharge Monitoring Reports and the NY-2A application provided by the permittee. All applicable groundwater effluent limitations and water quality standards were reviewed for development of the WQBELs. The standard and WQBEL shown below represent the most stringent.																
Flow Rate	MGD	Monthly Average	0.0170	0.017 Actual Average	3/0	**0.0170**	Design Flow	No alterations that will impair the waters for their best usages.					703.2	-	Design Flow
	A flow limit set at the design flow of the wastewater treatment facility has been continued in this permit.														
5-day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)	mg/L	Daily Maximum	**Monitor**	200* (BOD_5) (Actual Maximum)	3/2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(a) Change to BOD_5
	Outfall 003 discharges to groundwater and, consistent with 6 NYCRR 703.3 and 6 NYCRR 703.6, does not have an applicable dissolved oxygen water quality standard. Consistent with TOGS 1.3.3 for POTWs, page 15, when the effluent discharge is to groundwater, effluent limitations for BOD_5 are generally not required in the permit. However, monitoring will remain in the permit to track facility performance and has been updated to BOD_5 to capture both the carbonaceous and nitrogenous biochemical oxygen demands. *Previous permit required $CBOD_5$ sampling, but the permittee has been reporting BOD_5. Values represented here are in BOD_5.														
Total Suspended Solids (TSS)	mg/L	Daily Maximum	**Monitor**	98 (Actual Maximum)	3/2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(a)
	Consistent with TOGS 1.3.3 for POTW, page 15, when the effluent discharge is to groundwater effluent imitations for suspended solids are generally not required in the permit. However, monitoring will remain in the permit to track facility performance.														
Additional Pollutants Detected															
pH	SU	Minimum	6.0	7.2	3*	-	-	-	-	6.5 – 8.5	GW Effluent Limitation	**6.5 - 8.5**	703.6	-	WQBEL
		Maximum	9.0	7.9	3*	-	-								
	Consistent with TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. The effluent limitation range has been decreased to the appropriate groundwater effluent limitation under 703.6. *Unknown number of detect and non-detect results														

[7] Existing Effluent Quality: Unless otherwise stated, Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)

Outfall #	003	**Description of Wastewater:** Treated Sanitary Sewage **Type of Treatment:** Septic Tank and Mound System														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality[7]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis			
Total Mercury	µg/L	Daily Maximum	-	0.05	3*	-	-	-	0.16	1.4	GW Effluent Limitation	No Reasonable Potential	703.6	-	No Limitation or Monitoring	
	The projected instream concentration was calculated using the maximum reported effluent concentration of 0.054 µg/L, a multiplier of 3, and an assumed negligible ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 to account for the number of samples. A comparison of the projected instream concentration to the groundwater effluent limitation indicates no reasonable potential to cause or contribute to an exceedance. Therefore, no limitations or monitoring is necessary. *Unknown number of detect and non-detect results															

Outfall 003: Emerging Contaminants

Emerging Contaminants: Outfall 003																
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis			
Notes: See Emerging Contaminant Monitoring section above. Effluent samples represented below were submitted with the NY-2A application. As such, the number of detects/nondetects is unknown. Existing effluent quality value shown represents the maximum discharge value reported.																
Perfluoro-butanoic Acid (PFBA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)	
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.															
Perfluoro-pentanoic Acid (PFPeA)	ng/L	Daily Max	-	14.5	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)	
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.															
Perfluoro-hexanoic Acid (PFHxA)	ng/L	Daily Max	-	7.3	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)	
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.															
Perfluoro-heptanoic Acid (PFHpA)	ng/L	Daily Max	-	3.3	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)	
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.															

Emerging Contaminants: Outfall 003

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Perfluoro-octanoic Acid (PFOA)	ng/L	Daily Max	-	8.5	2	-	-	-	30	6.7	GW effluent limitation	6.7	TOGS 1.1.1 (February 2023 Addendum)	-	STM 750-1.13(b)
	The projected instream concentration was calculated using the maximum reported effluent concentration of 8.5 mg/L, a multiplier of 3.8, and an assumed negligible ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 to account for the number of samples. A comparison of the projected instream concentration to the guidance value indicates reasonable potential to cause or contribute to a water quality violation. However, due to the number of samples available and consistent with 6 NYCRR 750-1.13(b), a Short- Term Monitoring Program has been added to the permit to collect additional data for evaluation of the facility effluent.														
Perfluoro-nonanoic Acid (PFNA)	ng/L	Daily Max	-	2.1	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
Perfluoro-decanoic Acid (PFDA)	ng/L	Daily Max	-	3.6	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
Perfluoro-undecanoic Acid (PFUnA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
Perfluoro-dodecanoic Acid (PFDoA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
Perfluoro-tridecanoic Acid (PFTriA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
Perfluoro-tetradecanoic Acid (PFTeA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
Perfluoro-butanesulfonic Acid (PFBS)	ng/L	Daily Max	-	7.3	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
Perfluoro-pentanesulfonic Acid (PFPeS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														

Emerging Contaminants: Outfall 003

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Perfluoro-hexanesulfonic Acid (PFHxS)	ng/L	Daily Max	-	2.6	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
Perfluoro-heptanesulfonic Acid (PFHpS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
Perfluoro-octanoic Acid (PFOS)	ng/L	Daily Max	-	30	2	-	-	-	110	2.7	GW Effluent Limitation	2.7	TOGS 1.1.1 (February 2023 Addendum)	-	STM 750-1.13(b)
	The projected instream concentration was calculated using the maximum reported effluent concentration of 30 ng/L, a multiplier of 3.8, and an assumed negligible ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 to account for the number of samples. A comparison of the projected instream concentration to the guidance value indicates reasonable potential to cause or contribute to a water quality violation. However, due to the number of samples available and consistent with 6 NYCRR 750-1.13(b), a Short- Term Monitoring Program has been added to the permit to collect additional data for evaluation of the facility effluent.														
Perfluoro-nonanesulfonic Acid (PFNS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
Perfluoro-decanesulfonic Acid (PFDS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
Perfluoro-dodecane-sulfonic Acid (PFDoS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
Perfluoro-octane-sulfonamide (FOSA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														

Emerging Contaminants: Outfall 003

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
N-methyl Perfluoro-octanesulfon-amidoacetic Acid (NMeFOSAA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
N-ethyl Perfluoro-octanesulfon-amidoacetic Acid (NEtFOSAA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
4:2 Fluorotelomer Sulfonic Acid (FTS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
6:2 Fluorotelomer Sulfonic Acid (FTS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
8:2 Fluorotelomer Sulfonic Acid (FTS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STHIM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
N-ethyl Perfluoro-octanesulfon-amide (NEtFOSA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
N-methyl Perfluoro-octanesulfon-amide (NMeFOSA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
N-methyl Perfluoro-octanesulfon-amidoethanol (NMeFOSE)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														

Emerging Contaminants: Outfall 003

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
N-ethyl Perfluoro-octanesulfon-amidoethanol (NEtFOSE)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
9-Chlorohexadeca-fluoro-3-oxanonane-1-sulfonic Acid (9Cl-PF3ONS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
Hexafluoro-propylene Oxide Dimer Acid (HFPO-DA or GenX)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic Acid (11Cl-PF3OUdS)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
4,8-Dioxa-3H-perfluorononanoic Acid (ADONA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
3-Perfluoropropyl Propanoic Acid (3:3 FTCA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
2H,2H,3H,3H-Perfluoro-octanoic Acid (5:3 FTCA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														

Emerging Contaminants: Outfall 003

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
3-Perfluoroheptyl Propanoic Acid (7:3 FTCA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
Nonafluoro-3,6-dioxaheptanoic Acid (NFDHA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
Perfluoro-4-methoxy-butanoic Acid (PFMBA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
Perfluoro-3-methoxy-propanoic Acid (PFMPA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
Perfluoro(2-ethoxyethane)sulfonic Acid (PFEESA)	ng/L	Daily Max	-	ND	2	-	-	-	-	-	-	-	-	-	STM 750-1.13(b)
	Consistent with 6 NYCRR 750-1.13(b) the permit includes a Short-Term Monitoring program to collect additional data for evaluation of the facility effluent.														
1,4-Dioxane	µg/L	Daily Max	-	ND	2	-	-	-	-	0.35	GW Effluent Limitation	No Reasonable Potential	TOGS 1.1.1 (February 2023 Addendum)	-	No Limitation or Monitoring
	There were no detections of 1,4 – Dioxane reported, therefore there is no reasonable potential for an exceedance of the GW effluent limitation and no limits or monitoring are necessary.														

Appendix: Regulatory and Technical Basis of Permit Authorizations

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

Regulatory References

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

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

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

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

Outfall and Receiving Water Information

Impaired Waters

The NYS 303(d) List of Impaired/TMDL Waters identifies waters where specific best usages are not fully supported. The state must consider the development of a Total Maximum Daily Load (TMDL) or other strategy to reduce the input of the specific pollutant(s) that restrict waterbody uses, in order to restore and

protect such uses. SPDES permits must include effluent limitations necessary to implement a waste load allocation (WLA) of an EPA-approved TMDL (6 NYCRR 750-1.11(a)(5)(ii)), if applicable. In accordance with 6 NYCRR 750-1.13(a), permittees discharging to waters which are on the list but do not yet have a TMDL developed may be required to perform additional monitoring for the parameters causing the impairment. Accurate monitoring data is needed to determine the existing capabilities of the wastewater treatment plants and to assure that WLAs are allocated equitably.

Interstate Water Pollution Control Agencies

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

Existing Effluent Quality

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

Permit Requirements

Basis for Effluent Limitations

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

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

Anti-backsliding

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

case-by-case basis in this fact sheet. Consistent with current case law[8] and USEPA interpretation[9] anti-backsliding requirements do not apply should a revision to the final effluent limitation take effect before the scheduled date of compliance for that final effluent limitation.

Antidegradation Policy

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

Effluent Limitations

In developing a permit, the DEC 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 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.

[8] American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)
[9] U.S. EPA, Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California; 65 Fed. Reg. 31682, 31704 (May 18, 2000); Proposed Water Quality Guidance for the Great Lakes System, 58 Fed. Reg. 20802, 20837 & 20981 (April 16, 1993)

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 DEC considers a mixing zone analysis, critical flows, and reasonable potential analysis when developing a WQBEL.

Mixing Zone Analyses

In accordance with TOGS 1.3.1., the DEC may perform additional analysis of the mixing condition between the effluent and the receiving waterbody. Mixing zone analyses using plume dispersion modeling are conducted in accordance with the following:
"EPA Technical Support Document for Water Quality-Based Toxics Control" (March 1991); EPA Region VIII's "Mixing Zones and Dilution Policy" (December 1994); NYSDEC TOGS 1.3.1, "Total Maximum Daily Loads and Water Quality-Based Effluent Limitations" (July 1996); "CORMIX v11.0" (2019).

Critical Flows

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

Reasonable Potential Analysis (RPA)

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

WQS may be exceeded, a WQBEL is required. The procedure for developing WQBELs includes the following steps:

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

2) identify water quality criteria applicable to these pollutants;

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

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

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

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

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

Minimum Level of Detection

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

analytical method(s). In these instances, the calculated limitation is included in the permit with a compliance level set equal to the ML of the most sensitive method.

Monitoring Requirements

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

Action Levels

As defined in 6 NYCRR 750-1.2(a)(2), when used in a SPDES permit, an Action Level means a monitoring requirement characterized by a numerical value that, when exceeded, triggers additional permittee monitoring and DEC review to determine if numerical effluent limitations should be imposed.

The application of an Action Level is provided in TOGS 1.2.1. If the Action Level is exceeded, the permittee is required to conduct confirmatory monitoring. If Action Levels are routinely or excessively exceeded, they will be reconsidered and adjusted or replaced by limits in accordance with the Environmental Benefit Permit Strategy (EBPS). An Action Level is not a limit, and an exceedance does not constitute a permit violation unless the confirmatory sampling is not performed in accordance with the permit requirements.

Other Conditions

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 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, 2020 and 2025; 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 DEC determined that the MDV is consistent with the protection of public health, safety, and welfare. During the effective period of the 2025 MDV, any increased risks to human health are mitigated by fish consumption advisories issued periodically by the NYSDOH.

DOW 1.3.10 explains which surface water permittees are eligible for the MDV.

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.

Emerging Contaminants

Emerging Contaminants, such as Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonic acid (PFOS), and 1,4-Dioxane (1,4-D), have been used in a wide variety of consumer and industrial products as well as in manufacturing processes for decades. Based on available research, water quality assessments for 1,4-D will follow existing WQBEL development. PFOA and PFOS 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, the USEPA's addition of PFOA and PFOS to the hazardous substance list under CERCLA and the recommended contaminant monitoring list for state fish advisory programs, additional monitoring is needed to better understand potential sources and background levels.

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

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.

Attachment A: CORMIX Session Report

```
                    CORMIX MIXING ZONE EXPERT SYSTEM
                        CORMIX Version 12.0GTD
                      HYDRO1:Version-12.0.0.0  December,2020
 SITE NAME/LABEL:                North Lawrence East Sand Filter
   DESIGN CASE:                  Design Case 1
   FILE NAME:                    C:\Users\ejschnei\OneDrive - New York State Office
 of Information Technology Services\Desktop\CORMIX North Lawrence NY0110116\North
 Lawrence Design 1.prd
   Using subsystem CORMIX1:     Single Port Discharges
   Start of session:             03/04/2026--09:28:00
*******************************************************************************
```

SUMMARY OF INPUT DATA:

AMBIENT PARAMETERS:

Cross-section		= bounded
Width	BS	= 7.62 m
Channel regularity	ICHREG	= 1
Ambient flowrate	QA	= 0.26 m^3/s
Average depth	HA	= 0.09 m
Depth at discharge	HD	= 0.07 m
Ambient velocity	UA	= 0.3932 m/s
Darcy-Weisbach friction factor	F	= 0.1591
Calculated from Manning's n		= 0.03
Wind velocity	UW	= 2 m/s
Stratification Type	STRCND	= U
Surface temperature		= 20 degC
Bottom temperature		= 20 degC
Calculated FRESH-WATER DENSITY values:		
Surface density	RHOAS	= 998.2051 kg/m^3
Bottom density	RHOAB	= 998.2051 kg/m^3

DISCHARGE PARAMETERS:		Single Port Discharge
Nearest bank		= right
Distance to bank	DISTB	= 0.41 m
Port diameter	D0	= 0.0244 m
Port cross-sectional area	A0	= 0.0005 m^2
Discharge velocity	U0	= 3.37 m/s
Discharge flowrate	Q0	= 0.001577 m^3/s
Discharge port height	H0	= 0.07 m
Vertical discharge angle	THETA	= -77 deg
Horizontal discharge angle	SIGMA	= 90 deg
Discharge temperature (freshwater)		= 15 degC
Corresponding density	RHO0	= 999.1011 kg/m^3
Density difference	DRHO	= -0.8960 kg/m^3
Buoyant acceleration	GP0	= -0.0088 m/s^2
Discharge concentration	C0	= 100 %
Surface heat exchange coeff.	KS	= 0 m/s

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   Coefficient of decay             KD     = 0 /s
```

DISCHARGE/ENVIRONMENT LENGTH SCALES:

```
   LQ  = 0.02 m          Lm  = 0.19 m          Lb  = 0.00 m LM
   = 5.28 m              Lm' = 99999 m          Lb' = 99999 m
```

NON-DIMENSIONAL PARAMETERS:

```
   Port densimetric Froude number  FR0    = 230.01
   Velocity ratio                  R      = 8.57
```

MIXING ZONE / TOXIC DILUTION ZONE / AREA OF INTEREST PARAMETERS:

```
   Toxic discharge                         = no
   Water quality standard specified        = no
   Regulatory mixing zone                  = no
   Region of interest                      = 304.80 m downstream
**************************************************************************
```

HYDRODYNAMIC CLASSIFICATION:

```
   * ----------------------------------------*
   | FLOW CLASS     = IV4 |
   * ----------------------------------------*
   This flow configuration applies to a layer corresponding to the full water
   depth at the discharge site.
   Applicable layer depth = water depth = 0.07 m

   Limiting Dilution S = (QA/Q0)+ 1.0 = 166.6

 ************************************************************************
 MIXING ZONE EVALUATION (hydrodynamic and regulatory summary):
 ------------------------------------------------------------------------
 X-Y-Z Coordinate system:
   Origin is located at the BOTTOM below the port/diffuser center:
     0.41 m from the right bank/shore.
   Number of display steps NSTEP = 10 per module.
```

NEAR-FIELD REGION (NFR) CONDITIONS:

```
 Note: The NFR is the zone of strong initial mixing.  It has no regulatory
   implication.  However, this information may be useful for the discharge
   designer because the mixing in the NFR is usually sensitive to the discharge
   design conditions.
   Pollutant concentration at NFR edge  c = 71.428600 %
   Dilution at edge of NFR              s = 1.4
   NFR Location:                        x = 0.07 m
     (centerline coordinates)           y = 0.33 m
                                        z = 0 m
   NFR plume dimensions:  half-width (bh) = 0.04 m
                            thickness (bv) = 0.07 m
   Cumulative travel time:       0.1705 sec.
 ------------------------------------------------------------------------
```

```
 Buoyancy assessment:
   The effluent density is greater than the surrounding ambient water density at the
   discharge level.
   Therefore, the effluent is NEGATIVELY BUOYANT and will tend to sink towards
   the bottom.
```

IMPORTANT NOTE:

```
 Since the effluent is NEGATIVELY BUOYANT, it is recommended that you consider using
 the Brine or Sediment options for Effluent specification for a more detailed
 analysis, particularly for coastal discharges over a sloping bottom where density
 currents are important.

 CORMIX will however continue with the current simulation.
 ------------------------------------------------------------------------------------------------------------------------
 Near-field instability behavior:
   The discharge flow will experience instabilities with full vertical mixing in
   the near-field.
 ------------------------------------------------------------------------------------------------------------------------
   There may be benthic impact of high pollutant concentrations.
```

FAR-FIELD MIXING SUMMARY:

```
   Plume becomes vertically fully mixed ALREADY IN NEAR-FIELD at 0.07 m
   downstream and continues as vertically mixed into the far-field.
```

PLUME BANK CONTACT SUMMARY:

```
   Plume in bounded section contacts one bank only at 75.11 m downstream.
 ************************ TOXIC DILUTION ZONE SUMMARY ************************
 No TDZ was specified for this simulation.
 ********************** REGULATORY MIXING ZONE SUMMARY ***********************
 No RMZ and no ambient water quality standard have been specified.
 ********************** FINAL DESIGN ADVICE AND COMMENTS **********************
 REMINDER:  The user must take note that HYDRODYNAMIC MODELING by any known
   technique is NOT AN EXACT SCIENCE.
 Extensive comparison with field and laboratory data has shown that the
   CORMIX predictions on dilutions and concentrations (with associated plume
   geometries) are reliable for the majority of cases and are accurate to
   within about +-50% (standard deviation).
 As a further safeguard, CORMIX will not give predictions whenever it judges the
   design configuration as highly complex and uncertain for prediction.
```

Attachment B: CORMIX Prediction File

```
CORMIX1 PREDICTION FILE:
1111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111
11111111111
                        CORMIX MIXING ZONE EXPERT SYSTEM
                    Subsystem CORMIX1: Single Port Discharges
                             CORMIX Version 12.0GTD
                      HYDRO1 Version 12.0.0.0 December 2020
------------------------------------------------------------------------------------------------------------------------
----------
------------------------------------------------------------------------------------------------------------------------
----------
CASE DESCRIPTION
 Site name/label:   North Lawrence East Sand Filter
 Design case:       Design Case 1
 FILE NAME:         C:\...th Lawrence NY0110116\North Lawrence Design 1.prd
 Time stamp:        03/04/2026--09:28:00

ENVIRONMENT PARAMETERS (metric units)
 Bounded section
 BS    =      7.62  AS     =      0.66  QA     =      0.26  ICHREG= 1
 HA    =      0.09  HD     =       0.07
 UA    =      0.393 F      =      0.159 USTAR =0.5545E-01
 UW    =      2.000 UWSTAR=0.2198E-02
 Uniform density environment
 STRCND=  U         RHOAM =  998.2051

DISCHARGE PARAMETERS (metric units)
 Above Surface Discharge:
 Re-computed discharge conditions at entry point at water surface.
 BANK  =  RIGHT     DISTB =      0.41
 D0    =      0.024 A0    =      0.000 H0    =      0.07  SUB0  =      0.00
 THETA =      0.00  SIGMA =     90.00
 U0    =      3.371 Q0    =      0.002       =0.1577E-02
 RHO0  =  999.1011  DRHO0 =-.8960E+00   GP0   =-.8803E-02
 C0    =0.1000E+03  CUNITS=  %
 IPOLL =  1         KS    =0.0000E+00  KD    =0.0000E+00

FLUX VARIABLES (metric units)
 Q0    =0.1577E-02  M0     =0.5317E-02  J0     =-.1388E-04  SIGNJ0=       -1.0
 Associated length scales (meters)
 LQ    =      0.02  LM     =      5.28  Lm     =      0.19  Lb     =      0.00
                                        Lmp    =  99999.00  Lbp    =  99999.00

NON-DIMENSIONAL PARAMETERS
 FR0   =     230.01  R      =      8.57
```

FLOW CLASSIFICATION

```
 1111111111111111111111111111111111111111111111111
 1  Flow class (CORMIX1)      =    IV4          1
 1  Applicable layer depth HS =    0.07         1
   1  Limiting Dilution
   S=QA/Q0 + 1= 166.59
```

MIXING ZONE / TOXIC DILUTION / REGION OF INTEREST

PARAMETERS C0=0.1000E+03 CUNITS= %

```
NTOX  =  0
NSTD  =  0
REGMZ =  0
XINT  =    304.80  XMAX  =    304.80
```

X-Y-Z COORDINATE SYSTEM:

```
    ORIGIN is located at the bottom and below the center of the port:
         0.41 m  from the RIGHT bank/shore.
    X-axis points downstream, Y-axis points to left, Z-axis points upward.
```

NSTEP = 10 display intervals per module

BEGIN MOD101: DISCHARGE MODULE

X	Y	Z	S	C	B	Uc	TT
0.00	0.00	0.07	1.0	0.100E+03	0.01	3.371	.00000E+00

END OF MOD101: DISCHARGE MODULE

BEGIN CORJET (MOD110): JET/PLUME NEAR-FIELD MIXING REGION

```
 Jet/plume transition motion in weak crossflow.
   UNSTABLE NEAR-FIELD: Jet/plume will mix over full layer depth.
   Following MOD133 will include recirculation into jet region.

 Zone of flow establishment:            THETAE=    -76.71  SIGMAE=     77.88
  LE    =      0.08  XE    =      0.00  YE    =      0.02  ZE    =     -0.01

 Profile definitions:
   B = Gaussian 1/e (37%) half-width, normal to trajectory
   S = hydrodynamic centerline dilution
   C = centerline concentration (includes reaction effects, if any)
  Uc = Local centerline excess velocity (above ambient)
  TT = Cumulative travel time
```

X	Y	Z	S	C	B	Uc	TT
0.00	0.00	0.07	1.0	0.100E+03	0.01	3.371	.00000E+00
0.00	0.02	-0.01	1.0	0.100E+03	0.01	3.371	.00000E+00
0.00	0.02	-0.01	1.0	0.100E+03	0.01	3.371	.00000E+00

```
  Cumulative travel time =           0.0000 sec  (    0.00 hrs)
```

END OF CORJET (MOD110): JET/PLUME NEAR-FIELD MIXING REGION

BEGIN MOD133: LAYER BOUNDARY IMPINGEMENT/FULL VERTICAL MIXING

```
   Control volume inflow:
        X         Y         Z         S         C         B         TT
     0.00      0.02     -0.01       1.0 0.100E+03      0.01 .00000E+00

   Profile definitions:
     BV = layer depth (vertically mixed)
     BH = top-hat half-width, in horizontal plane normal to trajectory
     ZU = upper plume boundary (Z-coordinate)
     ZL = lower plume boundary (Z-coordinate)
     S  = hydrodynamic average (bulk) dilution
     C  = average (bulk) concentration (includes reaction effects, if any)
     TT = Cumulative travel time

        X         Y         Z         S         C         BV        BH        ZU        ZL
TT
      -0.01     0.33     0.00      1.0 0.100E+03    0.00      0.00      0.00      0.00
.00000E+00
      -0.00     0.33     0.00      1.0 0.100E+03    0.07      0.01      0.07      0.00
.00000E+00
       0.01     0.33     0.00      1.0 0.995E+02    0.07      0.02      0.07      0.00
.92794E-02
       0.01     0.33     0.00      1.0 0.957E+02    0.07      0.02      0.07      0.00
.29437E-01
       0.02     0.33     0.00      1.1 0.897E+02    0.07      0.03      0.07      0.00
.49595E-01
       0.03     0.33     0.00      1.2 0.837E+02    0.07      0.03      0.07      0.00
.69753E-01
       0.04     0.33     0.00      1.3 0.788E+02    0.07      0.03      0.07      0.00
.89911E-01
       0.05     0.33     0.00      1.3 0.755E+02    0.07      0.04      0.07      0.00
.11007E+00
       0.05     0.33     0.00      1.4 0.735E+02    0.07      0.04      0.07      0.00
.13023E+00
       0.06     0.33     0.00      1.4 0.724E+02    0.07      0.04      0.07      0.00
.15038E+00
       0.07     0.33     0.00      1.4 0.714E+02    0.07      0.04      0.07      0.00
.17054E+00

   Cumulative travel time =           0.1705 sec  (    0.00 hrs)
```

END OF MOD133: LAYER BOUNDARY IMPINGEMENT/FULL VERTICAL MIXING

```
 ** End of NEAR-FIELD REGION (NFR) **
```

BEGIN MOD141: BUOYANT AMBIENT SPREADING

```
 Discharge is non-buoyant or weakly buoyant.
 Therefore BUOYANT SPREADING REGIME is ABSENT.
```

END OF MOD141: BUOYANT AMBIENT SPREADING

```
 Due to the attachment or proximity of the plume to the bottom, the bottom
   coordinate for the FAR-FIELD differs from the ambient depth, ZFB = 0 m.
 In a subsequent analysis set "depth at discharge" equal to "ambient depth".
```

BEGIN MOD161: PASSIVE AMBIENT MIXING IN UNIFORM AMBIENT

```
  Vertical diffusivity (initial value)   = 0.744E-03 m^2/s
  Horizontal diffusivity (initial value) = 0.930E-03 m^2/s
```

The passive diffusion plume is VERTICALLY FULLY MIXED at beginning of region.

```
 Profile definitions:
   BV = Gaussian s.d.*sqrt(pi/2) (46%) thickness, measured vertically
      = or equal to layer depth, if fully mixed
   BH = Gaussian s.d.*sqrt(pi/2) (46%) half-width,
        measured horizontally in Y-direction
   ZU = upper plume boundary (Z-coordinate)
   ZL = lower plume boundary (Z-coordinate)
   S  = hydrodynamic centerline dilution
```

C = centerline concentration (includes reaction effects, if any)
TT = Cumulative travel time

```
 Plume Stage 1 (not bank atta
       X        Y       Z                C       BV       BH       ZU       ZL
TT
      0.07     0.33    0.00      1.4 0.714E+02   0.07     0.04     0.07     0.00
.17054E+00
      7.57     0.33    0.00      8.0 0.125E+02   0.07     0.24     0.07     0.00
.19142E+02
     15.08     0.33    0.00     11.2 0.891E+01   0.07     0.34     0.07     0.00
.38114E+02
     22.58     0.33    0.00     13.7 0.730E+01   0.07     0.41     0.07     0.00
.57086E+02
     30.09     0.33    0.00     15.8 0.633E+01   0.07     0.47     0.07     0.00
.76057E+02
     37.59     0.33    0.00     17.7 0.566E+01   0.07     0.53     0.07     0.00
.95029E+02
     45.10     0.33    0.00     19.3 0.517E+01   0.07     0.58     0.07     0.00
```

```
 .11400E+03
      52.60     0.33     0.00     20.9 0.479E+01    0.07      0.62     0.07     0.00
 .13297E+03
      60.11     0.33     0.00     22.3 0.448E+01    0.07      0.67     0.07     0.00
 .15194E+03
      67.61     0.33     0.00     23.7 0.423E+01    0.07      0.71     0.07     0.00
 .17092E+03
      75.11     0.33     0.00     24.9 0.401E+01    0.07      0.75     0.07     0.00
 .18989E+03
```

Cumulative travel time = 189.8877 sec (0.05 hrs

```
  Plume Stage 2 (bank attached):
        X         Y        Z         S        C         BV        BH       ZU       ZL
 TT
      75.11     -0.41     0.00     24.9 0.401E+01    0.07      1.49     0.07     0.00
 .18989E+03
      98.08     -0.41     0.00     25.9 0.387E+01    0.07      1.55     0.07     0.00
 .24795E+03
     121.05     -0.41     0.00     26.8 0.374E+01    0.07      1.60     0.07     0.00
 .30602E+03
     144.02     -0.41     0.00     27.6 0.362E+01    0.07      1.65     0.07     0.00
 .36408E+03
     166.99     -0.41     0.00     28.5 0.351E+01    0.07      1.70     0.07     0.00
 .42215E+03
     189.96     -0.41     0.00     29.3 0.341E+01    0.07      1.75     0.07     0.00
 .48021E+03
     212.93     -0.41     0.00     30.1 0.332E+01    0.07      1.80     0.07     0.00
 .53828E+03
     235.89     -0.41     0.00     30.9 0.324E+01    0.07      1.85     0.07     0.00
 .59634E+03
     258.86     -0.41     0.00     31.6 0.316E+01    0.07      1.89     0.07     0.00
 .65441E+03
     281.83     -0.41     0.00     32.4 0.309E+01    0.07      1.94     0.07     0.00
 .71247E+03
     304.80     -0.41     0.00     33.1 0.302E+01    0.07      1.98     0.07     0.00
 .77054E+03


  Cumulative travel time =         770.5370 sec  (    0.21 hrs)

  Simulation limit based on maximum specified distance =    304.80 m.
    This is the REGION OF INTEREST limitation.
```

END OF MOD161: PASSIVE AMBIENT MIXING IN UNIFORM AMBIENT

```
CORMIX1: Single Port Discharges     End of Prediction Fil
```