



# State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	<b>4953</b>	NAICS Code:	<b>562212</b>	SPDES Number:	<b>NY 026 4237</b>
Discharge Class (CL):	<b>01</b>	DEC Number:	<b>3-1330-00084/00003</b>		
Toxic Class (TX):	<b>T</b>	Effective Date (EDP):	<b>EDP</b>		
Major-Sub Drainage Basin:	<b>13 - 04</b>	Expiration Date (ExDP):	<b>ExDP</b>		
Water Index Number:	<b>H-95-7-2</b>	Item No.:	<b>862 - 271</b>	Modification Dates (EDPM):	
Compact Area:	-				

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:	<b>Fishkill-East Fishkill Joint Landfill Board</b>		Attention:	<b>Rebecca Tompkins, Board Secretary</b>	
Street:	<b>807 Route 52</b>				
City:	<b>Fishkill</b>	State:	<b>NY</b>	Zip Code:	<b>12524</b>
Email:	<b>btompkins@fishkill-ny.gov</b>		Phone:	<b>(845) 831-7800 x3328</b>	

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL											
Name:	<b>Fishkill-East Fishkill Joint Landfill</b>										
Address / Location:	<b>Van Wyck Lake Road / Fishkill</b>						County:	<b>Dutchess</b>			
City:	<b>Fishkill</b>				State:	<b>NY</b>		Zip Code:	<b>12524</b>		
Facility Location:	Latitude:	<b>41</b> °	<b>31</b> ' ,	<b>13</b> " N	& Longitude:	<b>73</b> °	<b>51</b> ' ,	<b>47</b> " W			
Primary Outfall No.:	<b>001</b>	Latitude:	<b>41</b> °	<b>31</b> ' ,	<b>18</b> " N	& Longitude:	<b>73</b> °	<b>51</b> ' ,	<b>53</b> " W		
Wastewater Description:	<b>Treated landfill leachate</b>	Receiving Water:	<b>Tributary of Bloomer Brook</b>			NAICS:	<b>562212</b>	Class:	<b>C</b>	Standard:	<b>C</b>

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

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

**DISTRIBUTION:**

CO BWP - Permit Coordinator  
 BWP – Permit Writer  
 CO BWC - SCIS  
 RWE  
 EPA Region II  
 Alison Wasserbauer - DOW  
 DC DBCH  
 Town of Fishkill Supervisor  
 Town of East Fishkill Supervisor  
 Rich Rennia, Rennia Eng Design  
 Rebecca Tompkins, Board Secretary

Permit Administrator:			
Address:	21 S. Putt Corners Road, New Paltz, NY 12561		
Signature:		Date:	/ /

## DEFINITIONS

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

## PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
001	Treated landfill leachate and stormwater	Tributary of Bloomer Brook	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	Monitor	GPD			2/Month	Metered		X	
	Daily Maximum	Monitor	GPD							
pH	Daily Minimum	6.5	SU			2/Month	Grab		X	
	Daily Maximum	8.5	SU							
Temperature	Daily Maximum	Monitor	°C			2/Month	Grab		X	
BOD <sub>5</sub>	Monthly Average	Monitor	mg/L			2/Month	Grab		X	
	Daily Maximum	5.0	mg/L							
Total Suspended Solids (TSS)	Monthly Average	Monitor	mg/L			2/Month	Grab		X	
	Daily Maximum	10	mg/L							
Total Dissolved Solids (TDS)	Monthly Average	Monitor	mg/L			2/Month	Grab		X	
	Daily Maximum	500	mg/L							
Dissolved Oxygen	Daily Minimum	7.0	mg/L			2/Month	Grab		X	
Ammonia (as N) (June 1 <sup>st</sup> – Oct. 31 <sup>st</sup> )	Monthly Average	Monitor	mg/L			2/Month	Grab		X	
	Daily Maximum	1.2	mg/L							
Ammonia (as N) (Nov. 1 <sup>st</sup> – May 31 <sup>st</sup> )	Monthly Average	Monitor	mg/L			2/Month	Grab		X	
	Daily Maximum	1.8	mg/L							
Total Residual Chlorine (TRC)	Monthly Average	Monitor	mg/L			2/Month	Grab		X	1,2
	Daily Maximum	0.030	mg/L							
Oil and Grease	Monthly Average	Monitor	mg/L			2/Month	Grab		X	
	Daily Maximum	15	mg/L							
Total Iron	Monthly Average	Monitor	mg/L			2/Month	Grab		X	
	Daily Maximum	0.30	mg/L							
Total Lead	Monthly Average	Monitor	µg/L			2/Month	Grab		X	
	Daily Maximum	4.0	µg/L							
Total Manganese	Monthly Average	Monitor	mg/L			2/Month	Grab		X	
	Daily Maximum	2.0	mg/L							
Total Zinc	Monthly Average	Monitor	µg/L			2/Month	Grab		X	
	Daily Maximum	80	µg/L							
Total Arsenic	Monthly Average	Monitor	µg/L			2/Month	Grab		X	
	Daily Maximum	50	µg/L							

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Benzoic Acid	Monthly Average	71	µg/L			2/Month	Grab		X	
	Daily Maximum	120	µg/L							
4-Methyl phenol (p-Cresol)	Monthly Average	Monitor	µg/L			1/Quarter	Grab		X	
	Daily Maximum	5.0	µg/L							
α-Terpineol	Monthly Average	Monitor	µg/L			1/Quarter	Grab		X	
	Daily Maximum	5.0	µg/L							
Total Phenols	Monthly Average	Monitor	µg/L			1/Quarter	Grab		X	3
	Daily Maximum	1.0	µg/L							
Color	Monthly Average	Monitor	Col Units (PC)			2/Month	Observed		X	
	Daily Maximum	Monitor	Col Units (PC)							

WHOLE EFFLUENT TOXICITY (WET) TESTING	Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
WET - Acute Invertebrate	See footnote		0.30	TUa	Quarterly	See footnote		X	4
WET - Acute Vertebrate	See footnote		0.30	TUa	Quarterly	See footnote		X	4
WET - Chronic Invertebrate	See footnote		1.0	TUc	Quarterly	See footnote		X	4
WET - Chronic Vertebrate	See footnote		1.0	TUc	Quarterly	See footnote		X	4

**FOOTNOTES:**

1. This is a final effluent limitation. See Schedule of Compliance for interim effluent limitation.
2. This is a Compliance Level. The calculated WQBEL is 0.005 mg/L.
3. Total phenols shall be determined by colorimetric or spectrophotometric analysis using the most sufficiently sensitive method approved under 40 CFR Part 136 for total recoverable phenols.

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

Testing Requirements – Chronic WET testing is required, but report both the acute and chronic results. Testing shall be performed in accordance with 40 CFR Part 136 and TOGS 1.3.2 unless prior written approval has been obtained from the Department. The test species shall be Ceriodaphnia dubia (water flea - invertebrate) and Pimephales promelas (fathead minnow - vertebrate). Receiving water collected upstream from the discharge should be used for dilution. All tests conducted should be static-renewal (two 24-hr composite samples with one renewal for Acute tests and three 24-hr composite samples with two renewals for Chronic tests). The appropriate dilution series should be used to generate a definitive test endpoint, otherwise an immediate rerun of the test may be required. WET testing shall be coordinated with the monitoring of chemical and physical parameters limited by this permit so that the resulting analyses are also representative of the sample used for WET testing. The ratio of critical receiving water flow to discharge flow (i.e. dilution ratio) is **0:1** for acute, and **0:1** for chronic. Discharges which are disinfected using chlorine should be dechlorinated prior to WET testing or samples shall be taken immediately prior to the chlorination system.

**FOOTNOTES (cont.):**

Monitoring Period - WET testing shall be performed quarterly (calendar quarters) during calendar years ending in 4 and 9.

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

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

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

## BEST MANAGEMENT PRACTICES (BMPs) FOR INDUSTRIAL FACILITIES

Note that for some facilities, especially those with few employees or limited industrial activities, some of the below BMPs may not be applicable. It is acceptable in these cases to indicate "Not Applicable" for the portion(s) of the BMP Plan that do not apply to your facility, along with an explanation.

1. **General** - The permittee shall develop, maintain, and implement a Best Management Practices (BMP) plan to prevent releases of significant amounts of pollutants to the waters of the State through plant site runoff; spillage and leaks; sludge or waste disposal; and stormwater discharges including, but not limited to, drainage from raw material storage. The BMP plan shall be documented in narrative form and shall include the 13 minimum BMPs and any necessary plot plans, drawings, or maps. Other documents already prepared for the facility such as a Safety Manual or a Spill Prevention, Control and Countermeasure (SPCC) plan may be used as part of the plan and may be incorporated by reference. A copy of the current BMP plan shall be submitted to the Department as required in item (2.) below and a copy must be maintained at the facility and shall be available to authorized Department representatives upon request.
2. **Compliance Deadlines** – The initial BMP plan shall be submitted in accordance with the Schedule of Submittals to the Regional Water Engineer. The BMP plan shall be implemented within 6 months of submission unless a different time frame is approved by the Department. The BMP plan **shall be reviewed annually** and shall be modified whenever (a) changes at the facility materially increase the potential for releases of pollutants; (b) actual releases indicate the plan is inadequate, or (c) a letter from the Department identifies inadequacies in the plan. The permittee shall certify in writing, as an attachment to the December Discharge Monitoring Report (DMR), that the annual review has been completed. Subsequent modifications to or renewal of this permit does not reset or revise these deadlines unless a new deadline is set explicitly by such permit modification or renewal.
3. **Facility Review** - The permittee shall review all facility components or systems (including but not limited to material storage areas; in-plant transfer, process, and material handling areas; loading and unloading operations; storm water, erosion, and sediment control measures; process emergency control systems; and sludge and waste disposal areas) where materials or pollutants are used, manufactured, stored or handled to evaluate the potential for the release of pollutants to the waters of the State. In performing such an evaluation, the permittee shall consider such factors as the probability of equipment failure or improper operation, cross-contamination of storm water by process materials, settlement of facility air emissions, the effects of natural phenomena such as freezing temperatures and precipitation, fires, and the facility's history of spills and leaks. The relative toxicity of the pollutant shall be considered in determining the significance of potential releases. The review shall address all substances present at the facility that are identified in the SPDES application Form NY-2C (available at [https://www.dec.ny.gov/docs/permits\\_ej\\_operations\\_pdf/form2c.pdf](https://www.dec.ny.gov/docs/permits_ej_operations_pdf/form2c.pdf)) or that are required to be monitored for by the SPDES permit.
4. **13 Minimum BMPs:** Whenever the potential for a release of pollutants to State waters is determined to be present, the permittee shall identify BMPs that have been established to prevent or minimize such potential releases. Where BMPs are inadequate or absent, appropriate BMPs shall be established. In selecting appropriate BMPs, the permittee shall consider good industry practices and, where appropriate, structural measures such as secondary containment and erosion/sediment control devices and practices. USEPA guidance for development of stormwater elements of the BMP is available in *Developing Your Stormwater Pollution Prevention Plan A Guide for Industrial Operators*, February 2009, EPA 833-B-09-002. As a minimum, the plan shall include the following BMPs:

- |                                     |   |                                 |
|-------------------------------------|---|---------------------------------|
| 1. BMP Pollution Prevention Team    | 6. Security   | 10. Spill Prevention & Response |
| 2. Reporting of BMP Incidents       | 7. Preventive Maintenance                             | 11. Erosion & Sediment Control  |
| 3. Risk Identification & Assessment | 8. Good Housekeeping                                  | 12. Management of Runoff        |
| 4. Employee Training                | 9. Materials/Waste Handling, Storage, & Compatibility | 13. Street Sweeping             |
| 5. Inspections and Records          |   |                                 |



## BMPs FOR INDUSTRIAL FACILITIES (continued)

5. **Stormwater Pollution Prevention Plans (SWPPPs) Required for Discharges of Stormwater from Construction Activity to Surface Waters** - A SWPPP shall be developed prior to commencing any construction activity that will result in soil disturbance of one or more acres of uncontaminated area<sup>1</sup>. (Note: the disturbance threshold is 5000 SF in the New York City East of Hudson Watershed). The SWPPP shall conform to the current version of the SPDES General Permit for Stormwater Discharges from Construction Activity (CGP), including the *New York Standards and Specifications for Erosion and Sediment Control* and *New York State Stormwater Management Design Manual*. The permittee shall submit a copy of the SWPPP and any amendments thereto to the local governing body and any other authorized agency having jurisdiction or regulatory control over the construction activity **at least 30 days prior to soil disturbance**. The SWPPP shall be maintained on-site and submitted to the Department only upon request. When a SWPPP is required, a properly completed *Notice of Intent* (NOI) form shall be submitted (available at [www.dec.ny.gov/chemical/43133.html](http://www.dec.ny.gov/chemical/43133.html)) prior to soil disturbance. Note that submission of the NOI is required for informational purposes; the permittee is not eligible for and will not obtain coverage under any SPDES general permit for stormwater discharges. SWPPPs must be developed for subsequent site disturbances in accordance with the above requirements. The permittee is responsible for ensuring that the provisions of each SWPPP are properly implemented.
6. **Required Sampling For "Hot Spot" Identification** - Development of the BMP plan shall include sampling of waste stream segments for the purpose of pollutant "hot spot" identification. The economic achievability of effluent limits will not be considered until plant site "hot spot" sources have been identified, contained, removed or minimized through the imposition of site specific BMPs or application of internal facility treatment technology. For the purposes of this permit condition a "hot spot" is a segment of an industrial facility (including but not limited to soil, equipment, material storage areas, sewer lines etc.) which contributes elevated levels of problem pollutants to the wastewater and/or stormwater collection system of that facility. For the purposes of this definition, problem pollutants are substances for which treatment to meet a water quality or technology requirement may, considering the results of waste stream segment sampling, be deemed unreasonable. For the purposes of this definition, an elevated level is a concentration or mass loading of the pollutant in question which is sufficiently higher than the concentration of that same pollutant at the compliance monitoring location so as to allow for an economically justifiable removal and/or isolation of the segment and/or B.A.T. treatment of wastewaters emanating from the segment.
7. **Facilities with Petroleum and/or Chemical Bulk Storage (PBS and CBS) Areas** - Compliance must be maintained with all applicable regulations including those involving releases, registration, handling and storage (6 NYCRR 595-599 and 612-614). Stormwater discharges from handling and storage areas should be eliminated where practical.
  - A. **Spill Cleanup** - All spilled or leaked substances must be removed from secondary containment systems as soon as practical and for CBS storage areas within 24 hours, unless written authorization is received from the Department. The containment system must be thoroughly cleaned to remove any residual contamination which could cause contamination of stormwater and the resulting discharge of pollutants to waters of the State. Following spill cleanup the affected area must be completely flushed with clean water three times and the water removed after each flushing for proper disposal in an on-site or off-site wastewater treatment plant designed to treat such water and permitted to discharge such wastewater. Alternately, the permittee may test the first batch of stormwater following the spill cleanup to determine discharge acceptability. If the water contains no pollutants at concentrations above the applicable effluent limits or Action Levels it may be discharged. Otherwise it must be disposed of as noted above. See *Discharge Monitoring* below for the list of parameters to be sampled for.
  - B. **Discharge Operation** - Stormwater must be removed before it compromises the required containment system capacity. Each discharge may only proceed with the prior approval of the permittee staff person responsible for ensuring SPDES permit compliance. Bulk storage secondary containment drainage systems must be locked in a closed position except when the operator is in the process of draining accumulated stormwater. Transfer area secondary containment drainage systems must be locked in a closed position during all transfers to or from these systems and must not be reopened unless the transfer area is clean of contaminants. Stormwater discharges from secondary containment systems should be avoided during periods of precipitation. A logbook shall be maintained on site noting the date, time and personnel supervising each discharge.

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<sup>1</sup> Uncontaminated area means soils which are free of contamination by any toxic or non-conventional pollutants identified in the tables of SPDES Application Form NY-2C. Disturbance of any size contaminated area(s) and the resulting discharge of contaminated stormwater is not authorized by this permit unless the discharge is under State or Federal oversight as part of a remedial program or after review by the Regional Water Engineer; nor is such discharge authorized by any SPDES general permit for stormwater discharges.

## BMPs FOR INDUSTRIAL FACILITIES (continued)

C. Discharge Screening - Prior to each discharge from a secondary containment system the stormwater must be screened for contamination\*. All stormwater must be inspected for visible evidence of contamination. Additional screening methods shall be developed by the permittee as part of the overall BMP Plan, e.g. the use of volatile gas meters to detect the presence of gross levels of gasoline or volatile organic compounds. If the screening indicates contamination, the permittee must collect and analyze a representative sample\*\* of the stormwater. If the water contains no pollutants at concentrations above the applicable effluent limits or Action Levels it may be discharged. Otherwise it must either be disposed of in an onsite or off site wastewater treatment plant designed to treat and permitted to discharge such wastewater or the Regional Water Engineer can be contacted to determine if it may be discharged without treatment.

D. Discharge Monitoring - Unless the discharge from any bulk storage containment system outlet is identified in the SPDES permit as an outfall with explicit effluent and monitoring requirements, the permittee shall monitor the outlet as follows:

(i) *Bulk Storage Secondary Containment Systems:*

(a) The volume of each discharge from each outlet must be monitored. Discharge volume may be calculated by measuring the depth of water within the containment area times the wetted area converted to gallons or by other suitable methods. A representative sample shall be collected of the first discharge\* following any cleaned up spill or leak. The sample must be analyzed for pH, the substance(s) stored within the containment area and any other pollutants the permittee knows or has reason to believe are present\*\*.

(b) Every fourth discharge\* from each outlet must be sampled for pH, the substance(s) stored within the containment area and any other pollutants the permittee knows or has reason to believe are present\*\*.

(ii) *Transfer Area Secondary Containment Systems:*

The first discharge\* following any spill or leak must be sampled for flow, pH, the substance(s) transferred in that area and any other pollutants the permittee knows or has reason to believe are present\*\*.

E. Discharge Reporting - Any results of monitoring required above, excluding screening data, must be submitted to the Department by appending them to the corresponding DMR. Failure to perform the required discharge monitoring and reporting shall constitute a violation of the terms of the SPDES permit.

F. Prohibited Discharges - **In all cases, any discharge which contains a visible sheen, foam, or odor, or may cause or contribute to a violation of water quality is prohibited.** The following discharges are prohibited unless specifically authorized elsewhere in this SPDES permit: spills or leaks, tank bottoms, maintenance wastewaters, wash waters where detergents or other chemicals have been used, tank hydrotest and ballast waters, contained firefighting runoff, fire training water contaminated by contact with pollutants or containing foam or fire retardant additives, and unnecessary discharges of water or wastewater into secondary containment systems.

\* Discharge includes stormwater discharges and snow and ice removal. If applicable, a representative sample of snow and/or ice should be collected and allowed to melt prior to assessment.

\*\* If the stored substance is gasoline or aviation fuel then sample for oil & grease, benzene, ethylbenzene, naphthalene, toluene and total xylenes. If the stored substance is kerosene, diesel fuel, fuel oil, or lubricating oil then sample for oil & grease and polynuclear aromatic hydrocarbons (PAHs). The analytical methods selected for monitoring the stored substances are to be the most sensitive in detecting and quantifying the target analytes as approved under 40 CFR Part 136 and in compliance with NYSDOH ELAP certified methods or as directed by the Department. If the substance(s) are listed in the tables of SPDES Application Form NY-2C then sampling is required. Contact the facility inspector for further guidance. In all cases flow and pH monitoring is required.



## MERCURY MINIMIZATION PROGRAM (MMP) - Type IV

On July 21, 2023, the permittee submitted a Conditional Exclusion Certification, certifying that the facility does not have any of the mercury sources listed in Part III.A.3. of DOW 1.3.10.

1. General - The permittee must develop, implement, and maintain a mercury minimization program (MMP), containing the elements set forth below.
2. MMP Elements - The MMP must be a written document and must include any necessary drawings or maps of the facility and/or collection system. Other related documents already prepared for the facility may be used as part of the MMP and may be incorporated by reference. At a minimum, the MMP must include the following elements<sup>2</sup> as described in detail below:
  - a. Conditional Exclusion Certification - A certification (Appendix D of DOW 1.3.10), signed in accordance with 750-1.8 Signature of SPDES forms, must be submitted once every five (5) years to the Regional Water Engineer and to the Bureau of Water Permits certifying that the facility is neither a mercury source nor receives flows from a mercury source. Criteria to determine if a facility has a mercury source are as follows:
    - The facility is or receives discharge from 1) individually permitted combined sewer overflow (CSOs)<sup>3</sup> communities and/or 2) Type II sanitary sewer overflow (SSO)<sup>4</sup> facilities;
    - One or more effluent samples which exceed 12 ng/L, including samples taken as a result of the SPDES application process;
    - Internal or tributary waste stream samples exceed the GLCA effluent limitation **AND** the final effluent samples are less than the GLCA due primarily to dilution by uncontaminated or less contaminated waste streams. Both components of this criterion may include samples taken as a result of the SPDES application process;
    - A permit application or other information indicates that mercury is handled on site and could be discharged through outfalls;
    - Outfalls which contain legacy mercury contamination;
    - The facility's collection system receives discharges from a dental and/or categorical industrial user (CIU)<sup>5</sup> that may discharge mercury;
    - The facility accepts hauled wastes; or,
    - The facility is defined as a categorical industry that may discharge mercury. This may also include dentists, universities, hospitals, or laboratories which have their own SPDES permit.
  - b. Control Strategy - The control strategy must contain the following minimum elements:
    - i. Equipment and Materials – Equipment and materials (e.g., thermometers, thermostats) used by the permittee, which may contain mercury, must be evaluated by the permittee. As equipment and materials containing mercury are updated/replaced, the permittee must use mercury-free alternatives, if possible.
    - ii. Bulk Chemical Evaluation – For chemicals, used at a rate which exceeds 1,000 gallons/year or 10,000 pounds/year, the permittee must obtain a manufacturer's certificate of analysis, a chemical analysis performed by a certified laboratory, and/or a notarized affidavit which describes the substances' mercury concentration and the detection limit achieved. If possible, the permittee must only use bulk chemicals utilized in the wastewater treatment process which contain <10 ppb mercury.

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<sup>2</sup>Neither monitoring nor outreach is required for facilities meeting the criteria for MMP Type IV, but monitoring and/or outreach can be included in the permittee's control strategy.

<sup>3</sup>CSO permits are included under the 05 and 07 permit classifications.

<sup>4</sup>These are overflow retention facilities (ORFs) and are included under the 05 and 07 permit classifications.

<sup>5</sup>CIUs include those listed under Federal Regulation in 40 CFR Part 400.

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

- c. **Status Report** - An **annual** status report must be developed and maintained on site, in accordance with the [Schedule of Additional Submittals](#), summarizing:
- i. Review of criteria to determine if the facility has a potential mercury source;
    - a. If the permittee no longer meets the criteria for MMP Type IV, the permittee must notify the Department for a permittee-initiated permit modification;
  - ii. All actions undertaken, pursuant to the control strategy, during the previous year; and
  - iii. Actions planned, pursuant to the control strategy, for the upcoming year.

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

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

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

### DEFINITIONS:

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

## DISCHARGE NOTIFICATION REQUIREMENTS

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

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

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

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

## SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

Outfall(s)	Compliance Action	Compliance Date <sup>6</sup>
001	<u>INTERIM STATUS REPORT</u> <sup>7</sup> Submit interim status report on the progress related to completion of DESIGN DOCUMENTS. This may include descriptions of investigations, source identifications, or future planned work. Alternatively, this may certify that final effluent limitations have been met.	EDP + 9 Months EDP + 18 Months
001	DESIGN DOCUMENTS The permittee shall submit approvable <sup>2</sup> Design Documents including a Basis of Design Report (BODR), Plans, Specifications, and Construction Schedule for the selected alternative that will ensure compliance with final effluent limitation(s) for Total Residual Chlorine.	EDP + 24 Months
001	<u>INTERIM STATUS REPORT</u> Submit interim status report on the progress related to COMPLETE CONSTRUCTION.	EDP + 33 Months EDP + 42 Months EDP + 51 Months
001	COMPLETE CONSTRUCTION The permittee shall provide a Certificate of Completion <sup>8</sup> to the Department that the disposal system has been fully completed in accordance with the approved Design Documents.	EDP + 54 Months
001	COMMENCE OPERATION Following receipt of Department acceptance of Certificate of Completion, the permittee shall comply with the final effluent limitation(s) described in this permit for Total Residual Chlorine.	Upon Department Acceptance
<b>Unless noted otherwise, the above actions are one-time requirements.</b>		

OUTFALL	PARAMETER	INTERIM EFFLUENT LIMIT					MONITORING REQUIREMENTS				Notes
		Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.		
001	Total Residual Chlorine	Daily Maximum	0.10	mg/L			2/Month	Grab	-	X	1
Notes:	1. Interim limits expire EDP + 54 months.										

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

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

<sup>6</sup> 6 NYCRR 750-1.14 (a)

<sup>7</sup> 6 NYCRR 750-1.14 (b)

<sup>8</sup> 6 NYCRR 750-2.10 (c)

of the probability that the permittee will meet the next scheduled requirement on time.

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

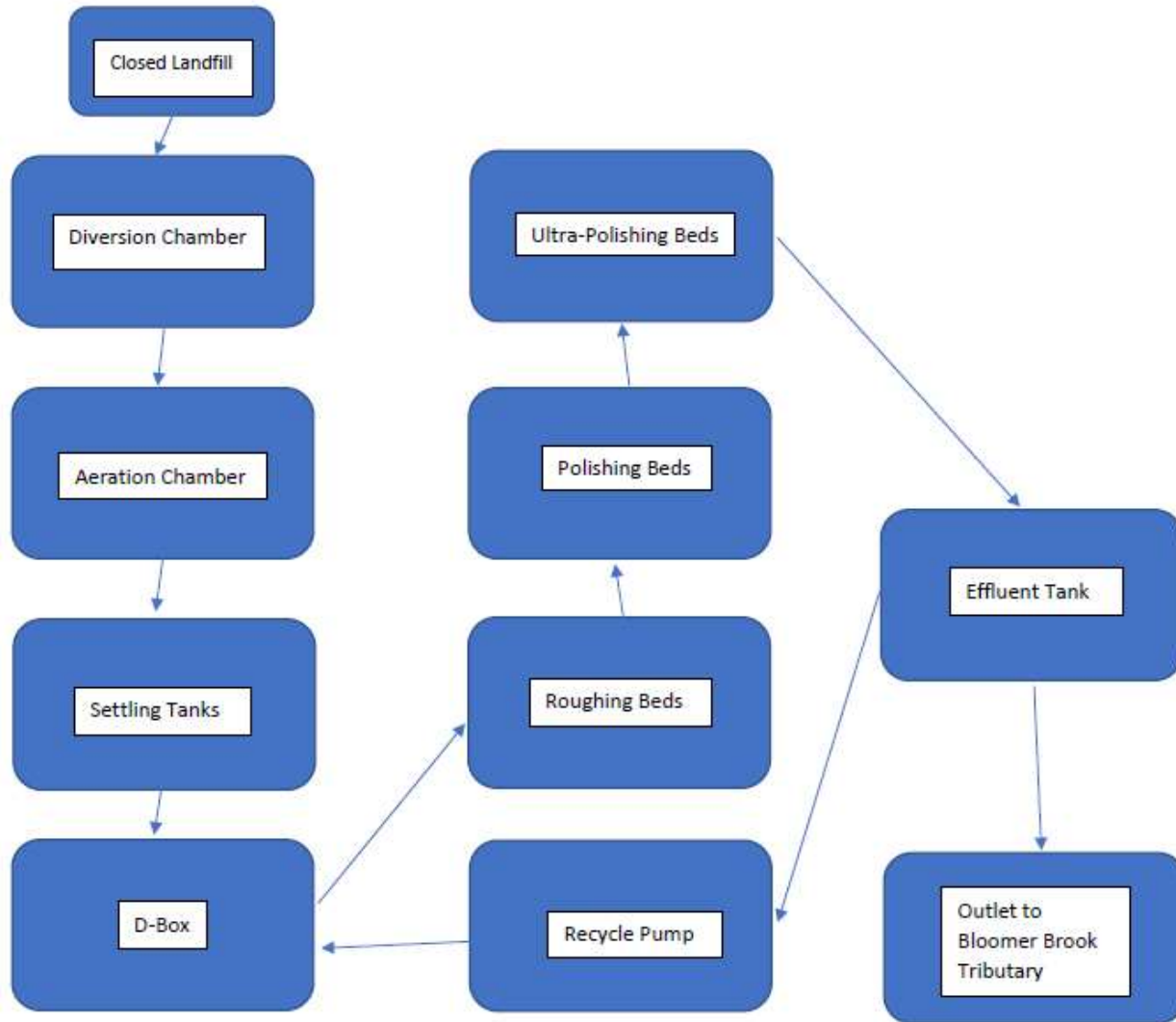
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# MONITORING LOCATIONS

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

Influent: At the diversion chamber.

Effluent: At the effluent tank.





# 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 H 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 for non-POTWs | 6 NYCRR 750-2.5, 2.6, 2.7, & 1.17 |
| 2. Anticipated noncompliance            | 6 NYCRR 750-2.7(a)                |
| 3. Transfers                            | 6 NYCRR 750-1.17                  |
| 4. Monitoring reports                   | 6 NYCRR 750-2.5(e)                |
| 5. Compliance schedules                 | 6 NYCRR 750-1.14(d)               |
| 6. 24-hour reporting                    | 6 NYCRR 750-2.7(c) & (d)          |
| 7. Other noncompliance                  | 6 NYCRR 750-2.7(e)                |
| 8. Other information                    | 6 NYCRR 750-2.1(f)                |
- F. Sludge Management
- The permittee shall comply with all applicable requirements of 6 NYCRR Part 360.
- G. SPDES Permit Program Fee
- The permittee shall pay to the Department an annual SPDES permit program fee within 30 days of the date of the first invoice, unless otherwise directed by the Department, and shall comply with all applicable requirements of ECL 72-0602 and 6 NYCRR Parts 480, 481 and 485. Note that if there is inconsistency between the fees specified in ECL 72-0602 and 6 NYCRR Part 485, the ECL 72-0602 fees govern.
- H. Water Treatment Chemicals (WTCs)
- New or increased use and discharge of a WTC requires prior Department review and authorization. At a minimum, the permittee must notify the Department in writing of its intent to change WTC use by submitting a completed *WTC Notification Form* for each proposed WTC. The Department will review that submittal and determine if a SPDES permit modification is necessary or whether WTC review and authorization may proceed outside of the formal permit administrative process. The majority of WTC authorizations do not require SPDES permit modification. In any event, use and discharge of a WTC shall not proceed without prior authorization from the Department. Examples of WTCs include biocides, coagulants, conditioners, corrosion inhibitors, defoamers, deposit control agents, flocculants, scale inhibitors, sequestrants, and settling aids.
1. WTC use shall not exceed the rate explicitly authorized by this permit or otherwise authorized by the Department.
  2. The permittee shall maintain a logbook of all WTC use, noting for each WTC the date, time, exact location, and amount of each dosage, and, the name of the individual applying or measuring the chemical. The logbook must also document that adequate process controls are in place to ensure excessive levels of WTCs are not used.
  3. The permittee shall submit a completed WTC Annual Report Form each year that they use and discharge WTCs. This form shall be submitted in electronic format and attached to either the December DMR or the annual monitoring report required below. The *WTC Notification Form and WTC Annual Report Form* are available from the Department's website at: <http://www.dec.ny.gov/permits/93245.html>

## RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

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

DMRs must be submitted electronically using the electronic reporting tool (NetDMR) specified by NYSDEC. Instructions on the use of NetDMR can be found at <https://www.dec.ny.gov/chemical/103774.html>. **Hardcopy paper DMRs will only be received at the address listed below, directed to the Bureau of Water Compliance, if a waiver from the electronic submittal requirements has been granted by DEC to the facility.**

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

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

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

Department of Environmental Conservation  
Regional Water Engineer, Region 3  
220 White Plains Road, Suite 110, Tarrytown, New York 10591 Phone: (914) 803-8157

- D. Schedule of Additional Submittals:

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

Outfall(s)	SCHEDULE OF ADDITIONAL SUBMITTALS - Required Action	Due Date
001	<u>BMP PLAN</u> The permittee shall submit and review the completed BMP plan on an annual basis. The BMP plan shall be modified whenever: (a) changes at the facility materially increase the potential for releases of pollutants, (b) actual releases indicate the plan is inadequate, or (c) a letter from the Department identifies inadequacies in the plan. The permittee shall certify in writing, as an attachment to the December Discharge Monitoring Report (DMR), that the annual review has been completed. All BMP plan revisions must be submitted to the Regional Water Engineer within 30 days.	EDP + 6 Months, Annually thereafter on January 28 <sup>th</sup>
001	<u>WHOLE EFFLUENT TOXICITY (WET) TESTING</u> WET testing shall be performed as required in the footnote of the permit limits table. The toxicity test report including all information requested of this permit shall be attached to your WET DMRs and sent to the <a href="mailto:WET@dec.ny.gov">WET@dec.ny.gov</a> email address.	Within 60 days following the end of each monitoring period
001	<u>MERCURY - CONDITIONAL EXCLUSION CERTIFICATION</u> 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.	July 21, 2028 and every 5 years thereafter

Outfall(s)	SCHEDULE OF ADDITIONAL SUBMITTALS - Required Action	Due Date
001	<p><u>MERCURY MINIMIZATION PLAN</u> The permittee must complete and maintain onsite an annual mercury minimization status report in accordance with the requirements of this permit.</p>	<p><b>Maintained Onsite</b> EDP + 12 months, annually thereafter</p>
001	<p><u>EMERGING CONTAMINANT SHORT-TERM MONITORING</u> The permittee shall collect grab samples of both the influent and effluent from the facility's treatment system(s) associated with the identified outfall for Per- and Polyfluoroalkyl Substances (PFAS) utilizing EPA draft analytical method 1633 and 1,4-Dioxane (1,4-D) utilizing EPA Method 8270D SIM or 8270E SIM. The samples must represent normal discharge conditions and treatment operations and shall be obtained on a monthly basis for at least 3 consecutive months.</p> <p>The results shall be reported through the "Emerging Contaminants Survey for Industrial Facilities" found at: <a href="https://www.dec.ny.gov/chemical/127939.html">https://www.dec.ny.gov/chemical/127939.html</a>.</p> <p>The permittee shall initiate track down of potential sources by completing the "Emerging Contaminants Investigation Checklist for Industrial Facilities" available at the above link.</p> <p>The Department may periodically request updates and/or additional monitoring to check progress on track down investigations. Elements of the checklist may be used as permit conditions in future permit modifications.</p>	<p>EDP + 6 months</p> <p>Within 90 days of DEC written notification</p>

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

- E. Monitoring and analysis shall be conducted using sufficiently sensitive test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
- F. More frequent monitoring of the discharge(s), monitoring point(s), or waters of the State than required by the permit, where analysis is performed by a certified laboratory or where such analysis is not required to be performed by a certified laboratory, shall be included in the calculations and recording of the data on the corresponding DMRs.
- G. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- H. Unless otherwise specified, all information recorded on the DMRs shall be based upon measurements and sampling carried out during the most recently completed reporting period.
- I. Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section 502 of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be directed to the New York State Department of Health, Environmental Laboratory Accreditation Program.

Permittee: Fishkill-East Fishkill Joint Landfill Board  
Facility: Fishkill-East Fishkill Joint Landfill  
SPDES Number: NY 026 4237  
USEPA Non-Major/Class 01 Industrial

Date: August 1, 2023 v.1.13  
Permit Writer: Alison Wasserbauer  
Water Quality Reviewer: Alison Wasserbauer  
Full Technical Review

**SPDES Permit Fact Sheet  
Fishkill-East Fishkill Joint  
Landfill Board  
Fishkill-East Fishkill Joint  
Landfill  
NY 026 4237**



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## Summary of Permit Changes

A State Pollutant Discharge Elimination System (SPDES) permit renewal and permittee-initiated permit modification has been drafted for the Fishkill-East Fishkill Joint Landfill. The changes to the permit are summarized below:

- Updated the cover page format and information, including the permittee contact name and contact information, the facility name and address, and the outfall coordinates;
- Added new monitoring requirements for temperature;
- Updated the Ammonia reporting requirements from “as NH<sub>3</sub>” to “as N”;
- Reduced the Total Residual Chlorine (TRC) limit;
- Reduced the sampling frequency from 2/Month to 1/Quarter for the following parameters:
  - 4-Methyl phenol (p-Cresol)
  - α-Terpineol
  - Total Phenols
- Added new WET testing requirements;
- Updated the language for the Best Management Practices (BMPs);
- Added new requirements for a Mercury Minimization Program, Type IV;
- Updated the Schedule of Compliance to remove completed compliance actions and to add a compliance period for attainment of the final effluent limits for Total Residual Chlorine;
- Updated the process flow diagram in the Monitoring Locations section;
- Added a General Requirements section;
- Updated the Recording, Reporting and Additional Monitoring Requirements section with information on NetDMR;
- Added the following requirements in a new Schedule of Submittals:
  - Submission and annual review of the completed BMP plan;
  - Submission of WET testing during calendar years ending in 4 and 9;
  - Submission of the Mercury Conditional Exclusion Certification every five (5) years;
  - Completion of a Mercury Minimization Program Annual Status Report (maintained onsite);
  - Submission of Emerging Contaminant Short-Term monitoring.

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

## Administrative History

1/1/2003 The last full technical review was performed and the SPDES permit became effective with a new five-year term and expiration date of 1/1/2008. The 2003 permit has formed the basis of this permit.

The permit was administratively renewed in 2008 and again in 2013. The last permit administrative renewal was effective until 12/31/2017.



- 5/30/2013 The Fishkill-East Fishkill Joint Landfill Board submitted a request to modify the permit to reduce the sampling frequency for seven (7) effluent parameters due to no detections in the effluent since 2008. Review of the Discharge Monitoring Reports (DMRs) during this period indicates detections were noted for several of the requested parameters.
- 12/31/2017 The last administrative renewal of the permit expired. No renewal applications were submitted.
- 6/16/2021 The Department issued a Notice of Violation (NOV) requiring the submission of a full NY-2C permit application within 30 days to modify and renew the SPDES permit due to the facility operating without a permit.
- 8/11/2021 The Fishkill-East Fishkill Joint Landfill Board submitted a NY-2C permit application.

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

## Facility Information

This is an industrial facility (SIC code 4953) that manages landfill leachate and is subject to categorical effluent limit guidelines (ELG) in 40 CFR §445.21 Subpart B (see summary table at the end of this factsheet). The facility includes a closed and capped landfill that previously received domestic waste.

<b>Outfall</b>	001
<b>40 CFR Part/Subpart</b>	§445.21 Subpart B
<b>Subpart Name</b>	RCRA Subtitle D Non-Hazardous Waste Landfill

Effluent consists of treated leachate and stormwater discharge. The current treatment system is an artificial wetland and was constructed in 2004 to provide landfill leachate treatment and includes the following treatment units:

- Preliminary Treatment: Diversion chamber
- Secondary Treatment: Aeration chamber, settling tank
- Tertiary Treatment: Roughing beds, polishing beds, ultra-polishing beds

The primary outfall (Outfall 001) is a four (4) in. diameter pipe that discharges effluent into a natural channel fifteen (15) ft. from the bank of the receiving waterbody.

### Site Overview

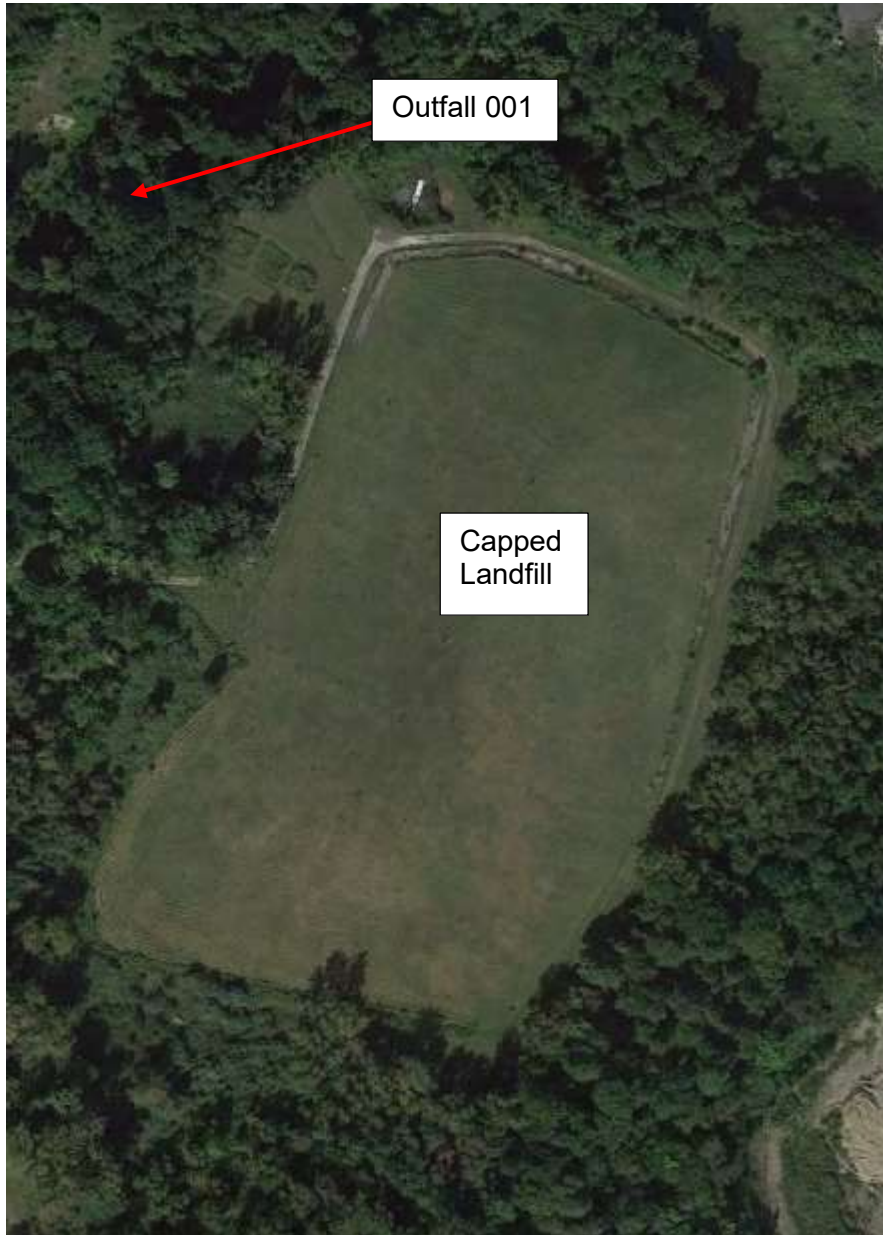


Figure 1. Aerial view of the capped and closed landfill. The outfall is indicated by the red arrow.

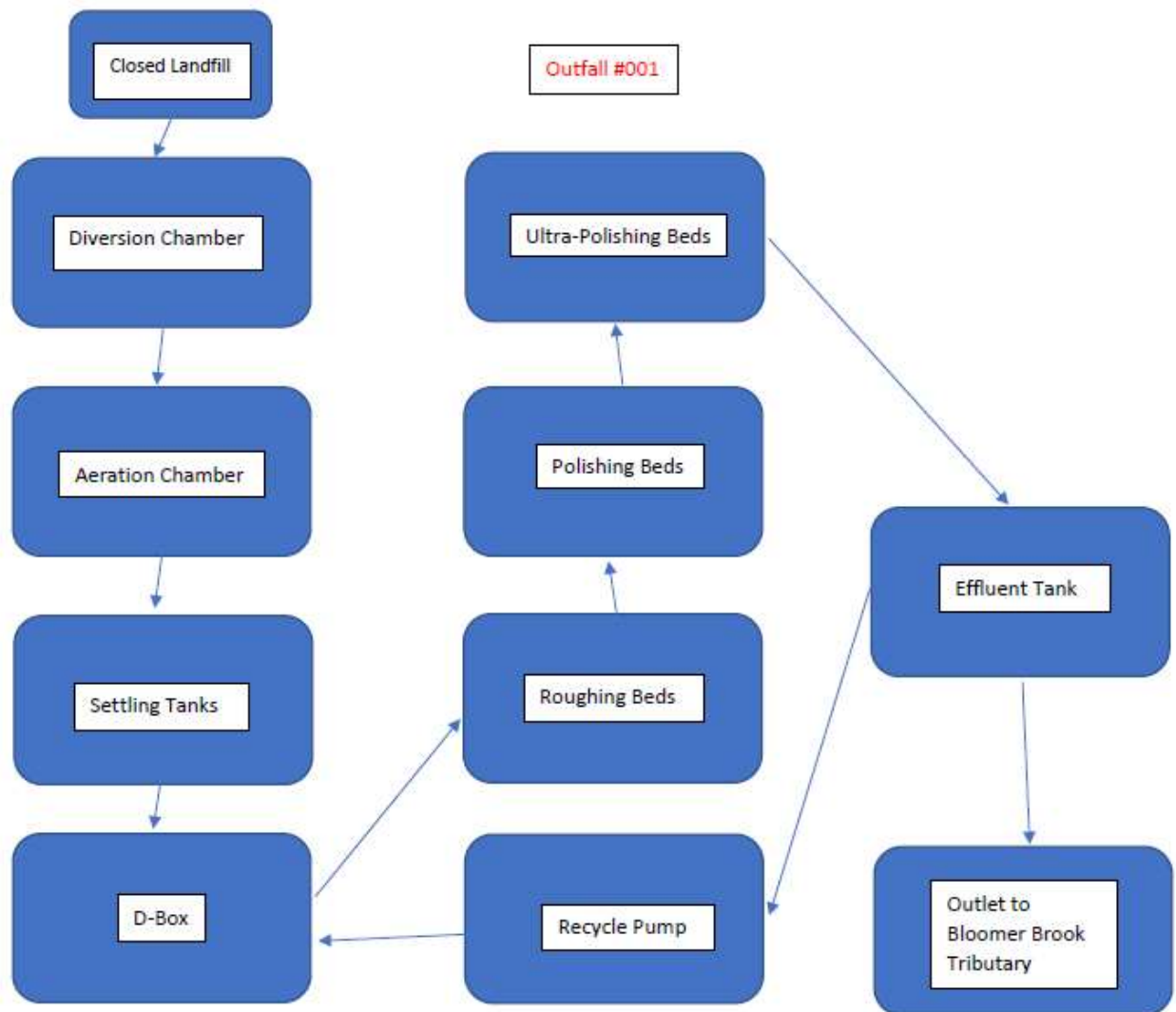


Figure 2. Artificial wetland process flow diagram with discharge to Outfall 001 (Outlet to Bloomer Brook Tributary).

### Enforcement History

A Notice of Violation (NOV) was issued on June 16, 2021, due to an expired SPDES permit. The permit expired on December 31, 2017, and the facility continued to operate without a permit. The NOV required the permittee to complete a submit a full NY-2C application within thirty (30) days of the NOV date to address the expired permit.

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

### Existing Effluent Quality

The [Pollutant Summary Table](#) presents the existing effluent quality and effluent limitations. The existing effluent quality was determined from Discharge Monitoring Reports submitted by the permittee for the period 7/1/2017 to 7/30/2022. [Appendix Link](#)

### Receiving Water Information

The facility discharges via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	4953	Treated landfill leachate, stormwater	Tributary of Bloomer Brook, Class C

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

### Impaired Waterbody Information

The Tributary of Bloomer Brook segment (PWL No. 1304-0010) is not listed on the 2018 [New York State Section 303\(d\) List](#) of Impaired/TMDL Waters, and therefore, there are no applicable wasteload allocations (WLAs) for this discharge.

### Critical Receiving Water Data & Mixing Zone

Intermittent stream effluent limits (ISEL) have been applied because information provided by the permittee through the application indicates the receiving waterbody has run dry in the past five (5) years. Consistent with TOGS 1.3.1, the water quality standards will be applied as end-of-pipe limitations with no mixing zone or any associated dilution.

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](#).

### USEPA Effluent Limitation Guidelines (ELGs) Applicable to Facility

Best Practicable Control Technology Currently Available (BPT), Best Conventional Pollutant Control Technology (BCT), Best Available Technology Economically Achievable (BAT), and New Source Performance Standards (NSPS) limitations are based on [Effluent Limitation Guidelines](#) developed by USEPA for specific industries<sup>1</sup>. The applicable effluent guidelines and limits are listed at the end of the Pollutant Summary Table in the USEPA ELG Calculation Table. [Appendix Link](#)

### Whole Effluent Toxicity (WET) Testing

An evaluation of the discharge indicates the potential for toxicity based on the following criteria: [Appendix Link](#)

- There is the possibility of complex synergistic or additive effects of chemicals, typically when the number of metals or organic compounds discharged by the permittee equals or

<sup>1</sup> As promulgated under 40 CFR Parts 405 - 471

exceeds five. (#4)

The requirement for WET testing is new. No previous WET data was available to perform a reasonable potential analysis. Consistent with TOGS 1.3.2, given the dilution available and location outside of the Great Lakes basin, the permit requires chronic WET testing. WET testing action levels of 0.3 TUa and 1.0 TUC have been included in the permit for each species. The acute dilution ratio is less than 3.3 and the acute action level has been set equal to the default value of 0.3 TUa<sup>2</sup>. The chronic action levels have been set to the default value of 1.0 TUC due to no available dilution. Samples will be collected quarterly during calendar years ending in 4 and 9.

### 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)<sup>3</sup> determination.

[Appendix Link](#)

### Discharge Notification Act Requirements

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

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

### Best Management Practices (BMPs) for Industrial Facilities

In accordance with 6 NYCRR 750-1.14(f) and 40 CFR 122.44(k), the permittee is required to develop and implement a BMP plan that prevents, or minimizes the potential for, the release of toxic or hazardous pollutants to state waters. The BMP plan requires annual review by the permittee.

### Emerging Contaminant Monitoring

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

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

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<sup>2</sup> EPA's Technical Support Document Section 5.7.4

<sup>3</sup> As prescribed by 6 NYCRR Part 617



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

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

#### Mercury<sup>4</sup>

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

The facility is located outside of the Great Lakes Basin, does not contain a mercury source, and is a NYS significant, Class 01 industrial. On July 21, 2023, the permittee submitted a Conditional Exclusion Certification, certifying that the facility does not have any of the mercury sources listed in Part III.A.3. of DOW 1.3.10 and the effluent measured <12 ng/L. Therefore, consistent with DOW 1.3.10, the permit includes requirements for the implementation of MMP Type IV and does not include mercury effluent limitations. The [Schedule of Additional Submittals](#) includes a mercury minimization plan annual status report (maintained onsite), and re-certification of the exclusion every five years. As part of the re-certification, the effluent must be sampled and continue to measure <12 ng/L. This requirement is new.

#### Schedule(s) of Compliance

A Schedule of Compliance is being included<sup>5</sup> for the following items ([Appendix Link](#)):

- Compliance period for attainment of final effluent limits for Total Residual Chlorine
  - A major modification to the treatment facility or operations is needed and will take a significant amount of time to properly plan, design, fund, and construct

#### Schedule(s) of Additional Submittals

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

- Submission and annual review of the completed BMP plan;
- Submission of WET testing during calendar years ending in 4 and 9;
- Submission of the Mercury Conditional Exclusion Certification every five (5) years;
- Completion of a Mercury Minimization Program Annual Status Report (maintained onsite);
- Submission of Emerging Contaminant Short-Term monitoring.

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<sup>4</sup> In accordance with DOW 1.3.10 Mercury – SPDES Permitting & Multiple Discharge Variance (MDV), December 30, 2020.

<sup>5</sup> Pursuant to 6 NYCRR 750-1.14



## OUTFALL AND RECEIVING WATER SUMMARY TABLE

Outfall	Latitude	Longitude	Receiving Water Name	Water Class	Water Index No. / Priority Waterbody Listing (PWL) No.	Major / Sub Basin	Hardness (mg/l)	1Q10 (MGD)	7Q10 (MGD)	30Q10 (MGD)	Critical Effluent Flow (MGD)	Dilution Ratio		
												A(A)	A(C)	HEW
001	41° 31' 18" N	73° 51' 53" W	Tributary of Bloomer Brook	C	H-95-7-2 PWL: 1304-0010	13 / 04	115 <sup>6</sup>	-	-	-	0.029	-	-	-

## POLLUTANT SUMMARY TABLE

### Outfall 001

Outfall #	001	Description of Wastewater: Treated landfill leachate, stormwater															
		Type of Treatment: Diversion chamber, aeration chamber, settling tank, roughing beds, polishing beds, ultra-polishing beds															
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement		
			Permit Limit	Existing Effluent Quality <sup>7</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL				
<b>General Notes:</b> Existing discharge data from July 1, 2017 to July 30, 2022 was obtained from Discharge Monitoring Reports and NY-2C application provided by the permittee. All applicable water quality standards were reviewed for development of the WQBELs. The standard and WQBEL shown below represent the most stringent.																	
Flow Rate	GPD	Monthly Avg	Monitor	2,696 Actual Average	41 / 0	<b>Monitor</b>	6 NYCRR 750-1.13 Monitor	Narrative						6 NYCRR 703.2	-	TBEL	
		Daily Max	Monitor	28,800 Actual Max	41 / 0	<b>Monitor</b>	6 NYCRR 750-1.13 Monitor										
Flow will continue to be monitored for informational purposes and to calculate pollutant loadings.																	
pH	SU	Minimum	6.5	6.7 Actual Min	41 / 0	<b>6.5</b>	Antibacksliding	-	-	6.5 – 8.5	Range	6.5 - 8.5	6 NYCRR 703.3	-	TBEL		
		Maximum	8.5	8.2 Actual Max	41 / 0	<b>8.5</b>											
A value of 20 SU was reported within the DMRs, but it was determined to be a reporting error. The TBELs are equal to the limitations from the last permit for antibacksliding purposes. Given that adequate dilution is not available, an effluent limitation equal to the TBELs is appropriate. This limit range remains more stringent than the USEPA ELG requirements consistent with 40 CFR Part 445.21 Subpart B.																	
Temperature	°C	Daily Max	-	26 Actual Max	-	<b>Monitor</b>	6 NYCRR 750-1.13 Monitor	-	Narrative						6 NYCRR 704.2	-	TBEL
		Consistent with 6 NYCRR 750-1.13(a), monitoring is required and may be used to inform future permitting decisions. This requirement is new.															

<sup>6</sup> Ambient hardness data obtained from RIBS Site ID 13-SPRO-1.3.

<sup>7</sup> Existing Effluent Quality: Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)

Permittee: Fishkill-East Fishkill Joint Landfill Board  
 Facility: Fishkill-East Fishkill Joint Landfill  
 SPDES Number: NY 026 4237  
 USEPA Non-Major/Class 01 Industrial

Date: August 1, 2023 v.1.13  
 Permit Writer: Alison Wasserbauer  
 Water Quality Reviewer: Alison Wasserbauer  
 Full Technical Review

Outfall #	001	Description of Wastewater: Treated landfill leachate, stormwater													
		Type of Treatment: Diversion chamber, aeration chamber, settling tank, roughing beds, polishing beds, ultra-polishing beds													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>7</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Dissolved Oxygen (DO)	mg/L	Daily Min	7.0	5.0 Actual Min	41 / 0	7.0	Antibacksliding	-	-	4.0 mg/L	Narrative	7.0	TOGS 1.3.1	-	TBEL
	Consistent with TOGS 1.3.1, intermittent stream effluent limits (ISEL) are applied to effluent discharges to streams where little or no streamflow is available for dilution. These effluent limitations represent the highest degree of treatment that can reasonably be achieved by a treatment facility. The TBELs are sufficient to protect water quality.														
5-day Biochemical Oxygen Demand (BOD <sub>5</sub> )	mg/L	Monthly Avg	Monitor	6.8 Actual Max	2 / 39	37	USEPA ELG BPT	-	See Dissolved Oxygen	Monitor	TOGS 1.3.1	-	-	-	TBEL
		Daily Max	5.0	34 Actual Max	5 / 36	5.0	Antibacksliding								
The TBELs reflect requirements for USEPA ELGs consistent with 40 CFR Part 445.21 Subpart B and antibacksliding. Consistent with TOGS 1.3.1, intermittent stream effluent limits (ISEL) are applied to effluent discharges to streams where little or no streamflow is available for dilution. The last permit required ISEL limits of BOD <sub>5</sub> = 5.0 mg/L, and no further stringency will be placed on BOD <sub>5</sub> limits as the daily maximum limit is protective of the TBEL and will limit the monthly average. The daily maximum TBEL is sufficient to protect water quality and meet USEPA ELG requirements.															
Total Suspended Solids (TSS)	mg/L	Monthly Avg	Monitor	11 Actual Max	9 / 32	27	USEPA ELG BPT	-	Narrative	10	TOGS 1.3.1	-	-	-	TBEL
		Daily Max	10	18 Actual Max	14 / 27	10	Antibacksliding								
The TBELs reflect requirements for USEPA ELGs consistent with 40 CFR Part 445.21 Subpart B and antibacksliding. Consistent with TOGS 1.3.1, intermittent stream effluent limits (ISEL) are applied to effluent discharges to streams where little or no streamflow is available for dilution. The last permit required ISEL limits of TSS = 10 mg/L, and no further stringency will be placed on TSS limits as the daily maximum limit is protective of the TBEL and will limit the monthly average. The daily maximum TBEL is sufficient to protect water quality and meet USEPA ELG requirements.															
Total Dissolved Solids (TDS)	mg/L	Monthly Avg	Monitor	440 Actual Max	41 / 0	Monitor	6 NYCRR 750-1.13 Monitor	-	-	-	-	-	6 NYCRR 703.3	-	-
		Daily Max	500	480 Actual Max	41 / 0	500	Antibacksliding								
The projected instream concentration was calculated using the maximum reported effluent concentration of 480 mg/L as reported in the monthly DMRs for Outfall 001 and an ambient upstream concentration of 0 mg/L. A multiplier <sup>8</sup> of 1.1 was included in calculating the project instream concentration due to that high number of sampling data. A comparison of the projected instream concentration to the WQS indicates a reasonable potential to cause or contribute to a WQS violation. The TBELs are sufficient to protect water quality.															
Nitrogen, Ammonia (as N)	mg/L	Monthly Avg	Monitor	< 0.50 (as NH <sub>3</sub> )	0 / 14	4.9 (as N)	USEPA ELG BPT	-	-	-	-	-	TOGS 1.1.1	-	TBEL
		Daily Max	1.5 (as NH <sub>3</sub> )	< 0.50 (as NH <sub>3</sub> )	0 / 14	1.2 (as N)	Antibacksliding								

<sup>8</sup> As recommended from EPA's Technical Support Document, Chapter 3.3

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Outfall #	Description of Wastewater: Treated landfill leachate, stormwater														
	Type of Treatment: Diversion chamber, aeration chamber, settling tank, roughing beds, polishing beds, ultra-polishing beds														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>7</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
June 1 <sup>st</sup> – Oct. 31 <sup>st</sup>	The TBELs reflect requirements for USEPA ELGs consistent with 40 CFR Part 445.21 Subpart B and antibacksliding. The WQS for Ammonia was determined from TOGS 1.1.1 from a summer pH of 7.5 and a temperature of 25 °C. The pH and temperature of the receiving waterbody were assumed values and consistent with TOGS 1.3.1E. The projected instream concentration was not calculated due to no detections between June 1 <sup>st</sup> and October 31 <sup>st</sup> within the past five (5) years. The last daily maximum permit limit is equal to the calculated WQBEL and the daily maximum TBEL is sufficient to protect water quality and meet USEPA ELG requirements as it will limit the monthly average. Reporting for Ammonia has been changed from (as NH <sub>3</sub> ) to (as N) for simpler data reporting, as this is consistent with the laboratory reporting units. Values can be converted using the equation: Ammonia (as N) = Ammonia (as NH <sub>3</sub> ) x 0.8224.														
Nitrogen, Ammonia (as N)	mg/L	Monthly Avg	Monitor	2.4 (as NH <sub>3</sub> ) Actual Max	3 / 24	4.9 (as N)	USEPA ELG BPT	-	-	-	-	-	TOGS 1.1.1	-	TBEL
		Daily Max	2.2 (as NH <sub>3</sub> )	4.5 (as NH <sub>3</sub> ) Actual Max	5 / 22	<b>1.8 (as N)</b>	Antibacksliding	0.082 (as N)	5.4 (as N)	1.9 (as N)	A(C)	1.9 (as N)			
Nov. 1 <sup>st</sup> – May 31 <sup>st</sup>	The TBELs reflect requirements for USEPA ELGs consistent with 40 CFR Part 445.21 Subpart B and antibacksliding. The WQS for Ammonia was determined from TOGS 1.1.1 from a winter pH of 7.5 and a temperature of 10 °C. The pH and temperature of the receiving waterbody were assumed values and consistent with TOGS 1.3.1E. The projected instream concentration was calculated using the maximum reported effluent concentration of 4.5 mg/L and an ambient upstream concentration of 0.082 mg/L. A multiplier <sup>9</sup> of 1.2 was applied to the maximum effluent concentration to account for the number of samples. In accordance with TOGS 1.3.1E, the HEW dilution ratio was applied to calculate the projected instream concentration. A comparison of the projected instream concentration to the WQS indicates a reasonable potential to cause or contribute to a WQS violation. The last daily maximum permit limit is more stringent than the calculated WQBEL and the daily maximum TBEL is sufficient to protect water quality and meet USEPA ELG requirements as it will limit the monthly average. Reporting for Ammonia has been changed from (as NH <sub>3</sub> ) to (as N) for simpler data reporting, as this is consistent with the laboratory reporting units. Values can be converted using the equation: Ammonia (as N) = Ammonia (as NH <sub>3</sub> ) x 0.8224.														
Total Mercury	ng/L	Daily Max	-	5.0	1 / 0	-	-	-	-	0.7	H(FC)	50	TOGS 1.3.10	-	No Limitation
See <a href="#">Mercury section of this factsheet</a> .															
Oil and Grease	mg/L	Monthly Avg	Monitor	< 5.0	0 / 41	Monitor	6 NYCRR 750-1.13 Monitor	-	Narrative				6 NYCRR 703.2	-	TBEL
		Daily Max	15	13 Actual max	4 / 41	<b>15</b>	Antibacksliding	-							
The TBELs reflect requirements for 6 NYCRR 750-1.13 and antibacksliding. Consistent with 6 NYCRR 703.2, the TBELs are sufficient to protect water quality.															
Total Residual Chlorine (TRC)	mg/L	Monthly Avg	Monitor	0.070 Actual Max	25 / 16	Monitor	6 NYCRR 750-1.13 Monitor	-	-	-	-	-	6 NYCRR 703.5	<b>0.03</b>	WQBEL
		Daily Max	0.10	0.070 Actual Max	25 / 16	0.10	Antibacksliding	-	-	0.005	A(C)	0.005			

<sup>9</sup> As recommended from EPA's Technical Support Document, Chapter 3.3

Outfall #	Description of Wastewater: Treated landfill leachate, stormwater														
	Type of Treatment: Diversion chamber, aeration chamber, settling tank, roughing beds, polishing beds, ultra-polishing beds														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>7</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
The TBELs reflect requirements for 6 NYCRR 750-1.13 and antibacksliding. Due to the low dilution, the calculated WQBEL is less than the TBEL and less than the minimum level of detection. Therefore, an effluent limitation equal to the minimum level of detection of 0.030 mg/L is appropriate. The 2013 modification request listed Total Residual Chlorine as a parameter with no detections and was requested to reduce the sampling frequency from 2/Month to 2/Year. Due to Total Residual Chlorine detections reported in the DRMs during the period between 2008 – 2013 and within the current effluent discharge data, the sampling frequency will remain at 2/Month.															
Total Iron	mg/L	Monthly Avg	Monitor	2.8 Actual Max	18 / 23	Monitor	6 NYCRR 750-1.13 Monitor	-	-	-	-	-	6 NYCRR 703.5	-	TBEL
		Daily Max	0.30	4.8 Actual Max	22 / 19	0.30	Antibacksliding	-	-	-	-	-			
The TBELs reflect requirements for 6 NYCRR 750-1.13 and antibacksliding. A water quality standard for Total Iron does not exist for Class C waterbodies. Therefore, limitations equal to the TBELs are specified and are sufficient to protect water quality.															
Total Lead	µg/L	Monthly Avg	Monitor	6.3 Actual max	14 / 27	Monitor	6 NYCRR 750-1.13 Monitor	-	-	-	-	-	6 NYCRR 703.5	-	TBEL
		Daily Max	4.0	6.4 Actual Max	21 / 22	4.0	Antibacksliding	-	12	4.4	A(C)	4.4			
The TBELs reflect requirements for 6 NYCRR 750-1.13 and antibacksliding. The projected instream concentration was calculated using the maximum reported effluent concentration of 14 µg/L and an ambient upstream concentration of 0 µg/L. A multiplier <sup>10</sup> of 1.1 was applied to the maximum effluent concentration to account for the number of samples. A metals transfer of 1.298 was applied to convert between the total and dissolved form in accordance with the EPA Document 823-B-96-007. A comparison of the project instream concentration to the WQS indicates a reasonable potential to cause or contribute to a WQS violation. Since the TBELs are more stringent than the calculated WQBEL, the TBELs are sufficient to protect water quality.															
Total Manganese	mg/L	Monthly Avg	Monitor	1.2 Actual Max	35 / 6	Monitor	6 NYCRR 750-1.13 Monitor	-	-	-	-	-	6 NYCRR 703.5	-	TBEL
		Daily Max	2.0	1.5 Actual Max	35 / 6	2.0	Antibacksliding	-	-	-	-	-			
The TBELs reflect requirements for 6 NYCRR 750-1.13 and antibacksliding. A water quality standard for Total Manganese does not exist for Class C waterbodies. Therefore, limitations equal to the TBELs are specified and are sufficient to protect water quality.															
Total Zinc	µg/L	Monthly Avg	Monitor	23 Actual Max	4 / 37	110	USEPA ELG BPT	-	-	-	-	-	6 NYCRR 703.5	-	TBEL
		Daily Max	80	31 Actual Max	8 / 33	80	Antibacksliding	-	34	93	A(C)	93			

<sup>10</sup> As recommended from EPA's Technical Support Document, Chapter 3.3

Outfall #	Description of Wastewater: Treated landfill leachate, stormwater														
	Type of Treatment: Diversion chamber, aeration chamber, settling tank, roughing beds, polishing beds, ultra-polishing beds														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>7</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
	<p>The TBELs reflect requirements for USEPA ELGs consistent with 40 CFR Part 445.31 Subpart B and antidegradation. The projected instream concentration was calculated using the maximum reported effluent concentration of 31 µg/L and an ambient upstream concentration of 0 µg/L. A multiplier<sup>11</sup> of 1.1 was applied to the maximum effluent concentration to account for the number of samples. A metals transfer of 1.014 was applied to convert between the total and dissolved form in accordance with the EPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a limitation equal to the daily maximum TBEL is specified and is sufficient to protect water quality and meet USEPA ELG requirements as it will limit the monthly average.</p> <p>The 2013 modification request listed Total Zinc as a parameter with no detections and was requested to reduce the sampling frequency from 2/Month to 2/Year. Due to Total Zinc detections reported in the DRMs during the period between 2008 – 2013 and within the current effluent discharge data, the sampling frequency will remain at 2/Month.</p>														
Total Arsenic	µg/L	Monthly Avg	Monitor	< 5.0	0 / 41	<b>Monitor</b>	6 NYCRR 750-1.13 Monitor	-	-	-	-	-	6 NYCRR 703.5	-	TBEL
		Daily Max	50	7.3 Actual Max	3 / 38	<b>50</b>	Antidegradation	-	8.0	150	A(C)	150			
	<p>The TBELs reflect requirements for 6 NYCRR 750-1.13 and antidegradation. The projected instream concentration was calculated using the maximum reported effluent concentration of 7.3 µg/L and an ambient upstream concentration of 0 µg/L. A multiplier<sup>12</sup> of 1.1 was applied to the maximum effluent concentration to account for the number of samples. A metals transfer of 1.0 was applied to convert between the total and dissolved form in accordance with the EPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, limitations equal to the TBEL are specified, and are sufficient to protect water quality.</p> <p>The 2013 modification request listed Arsenic as a parameter with no detections and was requested to reduce the sampling frequency from 2/Month to 2/Year. Due to Arsenic detections reported in the DRMs during the period between 2008 – 2013 and within the current effluent discharge data, the sampling frequency will remain at 2/Month.</p>														
Benzoic Acid	µg/L	Monthly Avg	71	1.3 Actual Max	1 / 40	<b>71</b>	USEPA ELG BPT	-	-	-	-	-	6 NYCRR 703.5	-	TBEL
		Daily Max	120	1.3 Actual Max	3 / 38	<b>120</b>	USEPA ELG BPT	-	-	-	-	-			
	<p>The TBELs reflect requirements for USEPA ELGs consistent with 40 CFR Part 445.21 Subpart B. A water quality standard for Benzoic Acid does not exist for Class C waterbodies. Therefore, limitations equal to the TBELs are specified and are sufficient to protect water quality and meet USEPA ELG requirements.</p> <p>The 2013 modification request listed Benzoic Acid as a parameter with no detections and was requested to reduce the sampling frequency from 2/Month to 2/Year. Due to Benzoic Acid detections reported in the DRMs during the period between 2008 – 2013 and within the current effluent discharge data, the sampling frequency will remain at 2/Month.</p>														
p-Cresol (4-Methyl phenol)	µg/L	Monthly Avg	Monitor	< 0.60	0 / 41	14	USEPA ELG BPT	-	-	-	-	-	6 NYCRR 703.5	-	TBEL
		Daily Max	5.0	< 0.60	0 / 41	<b>5.0</b>	Antidegradation	-	-	-	-	-			

<sup>11</sup> As recommended from EPA's Technical Support Document, Chapter 3.3

<sup>12</sup> As recommended from EPA's Technical Support Document, Chapter 3.3

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Outfall #	Description of Wastewater: Treated landfill leachate, stormwater														
	Type of Treatment: Diversion chamber, aeration chamber, settling tank, roughing beds, polishing beds, ultra-polishing beds														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>7</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
<p>The TBELs reflect requirements for USEPA ELGs consistent with 40 CFR Part 445.21 Subpart B and antibacksliding. A water quality standard for p-Cresol does not exist for Class C waterbodies. Therefore, a limitation equal to the daily maximum TBEL is specified and is sufficient to protect water quality and meet USEPA ELG requirements as it will limit the monthly average.</p> <p>The 2013 modification request listed p-Cresol as a parameter with no detections and was requested to reduce the sampling frequency from 2/Month to 2/Year. No detections of p-Cresol were reported in the DRMs during the period between 2008 – 2013 and within the current effluent discharge data. The sampling frequency will therefore be reduced to 1/Quarter as detections could still become present in the future.</p>															
α-Terpineol	µg/L	Monthly Avg	Monitor	< 0.67	0 / 41	16	USEPA ELG BPT	-	-	-	-	-	6 NYCRR 703.5	-	TBEL
		Daily Max	5.0	< 0.67	0 / 41	<b>5.0</b>	Antibacksliding	-	-	-	-	-			
<p>The TBELs reflect requirements for USEPA ELGs consistent with 40 CFR Part 445.21 Subpart B and antibacksliding. A water quality standard for α-Terpineol does not exist for Class C waterbodies. Therefore, a limitation equal to the daily maximum TBEL is specified and is sufficient to protect water quality and meet USEPA ELG requirements as it will limit the monthly average.</p> <p>The 2013 modification request listed α-Terpineol as a parameter with no detections and was requested to reduce the sampling frequency from 2/Month to 2/Year. No detections of α-Terpineol were reported in the DRMs during the period between 2008 – 2013 and within the current effluent discharge data. The sampling frequency will therefore be reduced to 1/Quarter as detections could still become present in the future.</p>															
Total Phenols	µg/L	Monthly Avg	Monitor	< 0.50	0 / 41	15	USEPA ELG BPT	-	-	-	-	-	6 NYCRR 703.5	-	TBEL
		Daily Max	1.0	< 0.50	0 / 41	<b>1.0</b>	Antibacksliding	-	-	1.0	E(FS)	No RP			
<p>The TBELs reflect requirements for USEPA ELGs consistent with 40 CFR Part 445.21 Subpart B and antibacksliding. The projected instream concentration was not calculated due to no detections of Total Phenols in the existing effluent, which indicates no reasonable potential to cause or contribute to the WQS violation. Therefore, a limitation equal to the daily maximum TBEL is specified and is sufficient to protect water quality and meet USEPA ELG requirements as it will limit the monthly average.</p> <p>The 2013 modification request listed Total Phenols as a parameter with no detections and was requested to reduce the sampling frequency from 2/Month to 2/Year. No detections of Total Phenols were reported in the DRMs during the period between 2008 – 2013 and within the current effluent discharge data. The sampling frequency will therefore be reduced to 1/Quarter as detections could still become present in the future.</p>															
Color	Col Unit (PC)	Monthly Avg	Monitor	50 Actual Max	41 / 0	<b>Monitor</b>	6 NYCRR 750-1.13 Monitor	-	Narrative	-	6 NYCRR 703.2	-	TBEL		
		Daily Max	Monitor	50 Actual Max	41 / 0	<b>Monitor</b>	6 NYCRR 750-1.13 Monitor	-		-					
<p>The TBELs reflect monitoring requirements consistent with 6 NYCRR 750-1.13. Compared to relatively clear water, a maximum reported value of 50 PC indicates the effluent is very cloudy and would be very apparent in the receiving waterbody. Consistent with 6 NYCRR 703.2, the TBELs are protective of water quality.</p>															



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## USEPA EFFLUENT LIMITATION GUIDELINE (ELG) CALCULATIONS

[Appendix Link](#)

For the applicable categorical limitations under 40 CFR Part 445.21 Subpart B, the following basis was used to determine the TBEL:

<b>Outfall</b>	001
<b>40 CFR Part/Subpart</b>	§445.21 Subpart B
<b>Subpart Name</b>	RCRA Subtitle D Non-Hazardous Waste Landfill

ELG Pollutant	Daily Max TBEL (lbs/d)	Monthly Avg. TBEL (lbs/d)
<b>40 CFR Part 445.21 Subpart B – ELGs for Best Practicable Control Technology Currently Available</b>		
BOD	140	37
TSS	88	27
Ammonia (as N)	10	4.9
α-Terpineol	0.033	0.016
Benzoic Acid	0.12	0.071
p-Cresol	0.025	0.014
Phenol	0.026	0.015
Zinc	0.20	0.11
pH	6.0 – 9.0 SU	
<b>Note: Permittee indicated that this subpart was applicable because the landfill is a non- hazardous waste landfill that was closed in accordance with RCSD Subtitle D requirements.</b>		

## Appendix: Regulatory and Technical Basis of Permit Authorizations

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

### Regulatory References

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

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

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

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

### Outfall and Receiving Water Information

#### Impaired Waters

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

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

### Existing Effluent Quality

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

### Permit Requirements

#### Basis for Effluent Limitations

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

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

#### Anti-backsliding

Anti-backsliding requirements are specified in the CWA sections 402(o) and 303(d)(4), ECL 17-0809, and regulations at 40 CFR 122.44(I) and 6 NYCRR 750-1.10(c) and (d). Generally, the relaxation of effluent limitations in permits is prohibited unless one of the specified exceptions applies, which will be cited on a case-by-case basis in this factsheet. Consistent with current case law<sup>13</sup> and USEPA interpretation<sup>14</sup> anti-backsliding requirements do not apply should a revision to the final effluent limitation take effect before the scheduled date of compliance for that final effluent limitation.

#### Antidegradation Policy

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

#### Effluent Limitations

In developing a permit, the Department determines the technology-based effluent limitations (TBELs) and then evaluates the water quality expected to result from technology controls to determine if any exceedances of water quality criteria in the receiving water might result. If there is a reasonable potential for exceedances of water quality criteria to occur, water quality-based effluent limitations (WQBELs) are developed. A WQBEL is designed

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

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

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

### *Technology-based Effluent Limitations (TBELs) for Industrial Facilities*

A TBEL requires a minimum level of treatment for industrial point sources based on currently available treatment technologies and/or Best Management Practices (BMPs). CWA sections 301(b) and 402, ECL sections 17-0509, 17-0809 and 17-0811, and 6 NYCRR 750-1.11 require technology-based controls on effluents. TBELs are set based upon an evaluation of New Source Performance Standards (NSPS), Best Available Technology Economically Achievable (BAT), Best Conventional Pollutant Control Technology (BCT), Best Practicable Technology Currently Available (BPT), and/or Best Professional Judgment (BPJ).

### *USEPA Effluent Limitation Guidelines (ELGs) Applicable to Facility*

In many cases, BPT, BCT, BAT and NSPS limitations are based on effluent guidelines developed by USEPA for specific industries, as promulgated under 40 CFR Parts 405-471. Applicable guidelines, pollutants regulated by these guidelines, and the effluent limitation derivation for facilities subject to these guidelines is in the [USEPA Effluent Limitation Guideline Calculations Table](#).

### *Best Professional Judgement (BPJ)*

For substances that are not explicitly limited by regulations, the permit writer is authorized to use BPJ in developing TBELs. Consistent with section 402(a)(1) of the CWA, and NYS ECL section 17-0811, the Department is authorized to issue a permit containing "any further limitations necessary to ensure compliance with water quality standards adopted pursuant to state law". BPJ limitations may be set on a case-by-case basis using any reasonable method that takes into consideration the criteria set forth in 40 CFR 125.3. Applicable state regulations include 6 NYCRR 750-1.11. The BPJ limitation considers the existing technology present at the facility, the statistically calculated existing effluent quality for that parameter, and any unique or site-specific factors relating to the facility. Technology limitations generally achievable for various treatment technologies are included in TOGS 1.2.1, Attachment C. These limitations may be used for the listed parameters when the technology employed at the facility is listed.

### *Water Quality-Based Effluent Limitations (WQBELs)*

In addition to the TBELs, permits must include additional or more stringent effluent limitations and conditions, including those necessary to protect water quality. CWA sections 101 and 301(b)(1)(C), 40 CFR 122.44(d)(1), and 6 NYCRR Parts 750-1.11 require that permits include limitations for all pollutants or parameters which are or may be discharged at a level which may cause or contribute to an exceedance of any State water quality standard adopted pursuant to NYS ECL 17-0301. 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 and must be consistent with any applicable WLA which may be in effect through a TMDL for the receiving water. These and other requirements are summarized in TOGS 1.1.1, 1.3.1, 1.3.2, 1.3.5 and 1.3.6. The Department considers a mixing zone analysis, critical flows, and reasonable potential analysis when developing a WQBEL.

### *Mixing Zone Analyses*

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

### *Critical Flows*

In accordance with TOGS 1.2.1 and 1.3.1, WQBELs are developed using dilution ratios that relate the critical low flow condition of the receiving waterbody to the critical effluent flow. The critical

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

#### Reasonable Potential Analysis (RPA)

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

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

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

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



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

#### *Whole Effluent Toxicity (WET) Testing:*

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

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

#### *Minimum Level of Detection*

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

#### *Monitoring Requirements*

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

frequency is based on guidance provided in TOGS 1.2.1. For municipal facilities, sampling frequency is based on guidance provided in TOGS 1.3.3.

## Other Conditions

### Mercury

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

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

### Schedules of Compliance

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

### Schedule(s) of Additional Submittals

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

### Best Management Practices (BMP) for Industrial Facilities

BMP plans are authorized for inclusion in NPDES permits pursuant to Sections 304(e) and 402 (a)(1) of the Clean Water Act, and 6 NYCRR 750-1.14(f). The regulations pertaining to BMPs are promulgated under 40 CFR Part 125, Subpart K. These regulations specifically address surface water discharges.