



# State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	<b>1794, 1623</b>	NAICS Code:		SPDES Number:	<b>NY0277274</b>
Discharge Class (CL):	<b>04</b>	DEC Number:	<b>2-6402-00004/100</b>		
Toxic Class (TX):	<b>N</b>	Effective Date (EDP):	<b>DRAFT</b>		
Major-Sub Drainage Basin:	<b>17 - 01</b>	Expiration Date (ExDP):	<b>DRAFT</b>		
Water Index Number:	<b>(MW1.3) UB</b>	Item No.:	<b>890.6 - 6</b>	Modification Dates (EDPM):	
Compact Area:	<b>IEC</b>				

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>New York City Economic Development Corporation (NYCDEC)</b>			Attention:	<b>Leonard Greco</b>	
Street:	<b>One Liberty Plaza</b>					
City:	<b>New York</b>	State:	<b>NY</b>	Zip Code:	<b>10006</b>	
Email:	<b>Lgreco@edc.nyc</b>			Phone:	<b>212-312-3743</b>	

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL							
Name:	<b>New Stapleton Waterfront Development – Northern &amp; Southern Phases</b>						
Address / Location:	<b>Front Street from Wave Street to Hannah Street</b>				County:	<b>Richmond</b>	
City:	<b>Staten Island</b>			State:	<b>NY</b>	Zip Code:	<b>10304</b>
Facility Location:	Latitude:	<b>40 ° 38 ' 00 " N</b>	& Longitude:	<b>-74 ° 04 ' 26 " W</b>			
Primary Outfall No.:	<b>001 (PR-622)</b>	Latitude:	<b>40 ° 38 ' 06 " N</b>	& Longitude:	<b>74 ° 04 ' 23 " W</b>		
Wastewater Description:	<b>MS4</b>	Receiving Water:	<b>Upper New York Bay</b>	NAICS:	Class:	<b>I</b>	Standard:

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

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

**DISTRIBUTION:**

- BWP Permit Coordinator ([permit.coordinator@dec.ny.gov](mailto:permit.coordinator@dec.ny.gov))
- BWP Permit Writer
- RWE ([Selvin.southwell@dec.ny.gov](mailto:Selvin.southwell@dec.ny.gov))
- RPA
- EPA Region II ([Region2\\_NPDES@epa.gov](mailto:Region2_NPDES@epa.gov))
- NYCEDC

Permit Administrator:	<b>Stephen A. Watts III</b>	
Address:	<b>47-40 21<sup>st</sup> Street, Long Island City, NY 11101</b>	
Signature	Date	

## SUMMARY OF ADDITIONAL OUTFALLS

Outfall	Wastewater Description	NAICS Code	Outfall Latitude			Outfall Longitude		
<b>002 (PR-014)</b>	Combined Sewer Overflow		<b>40</b> °	<b>37</b> '	<b>51</b> " N	<b>74</b> °	<b>04</b> '	<b>23</b> " W
Receiving Water:	<b>Upper New York Bay</b>					Class:	<b>I</b>	

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## DEFINITIONS

TERM	DEFINITION
7-Day Geo Mean	The highest allowable geometric mean of daily discharges over a calendar week.
7-Day Average	The average of all daily discharges for each 7-days in the monitoring period. The sample measurement is the highest of the 7-day averages calculated for the monitoring period.
12-Month Rolling Average (12 MRA)	The current monthly value of a parameter, plus the sum of the monthly values over the previous 11 months for that parameter, divided by the number of months for which samples were collected in the 12-month period.
30-Day Geometric Mean	The highest allowable geometric mean of daily discharges over a calendar month, calculated as the antilog of: the sum of the log of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
Action Level	Action level means a monitoring requirement characterized by a numerical value that, when exceeded, triggers additional permittee actions and department review to determine if numerical effluent limitations should be imposed.
Compliance Level / Minimum Level	A compliance level is an effluent limitation. A compliance level is given when the water quality evaluation specifies a Water Quality Based Effluent Limit (WQBEL) below the Minimum Level. The compliance level shall be set at the Minimum Level (ML) for the most sensitive analytical method as given in 40 CFR Part 136, or otherwise accepted by the DEC.
Daily Discharge	The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for the purposes of sampling. For pollutants expressed in units of mass, the 'daily discharge' is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the 'daily discharge' is calculated as the average measurement of the pollutant over the day.
Daily Maximum	The highest allowable Daily Discharge.
Daily Minimum	The lowest allowable Daily Discharge.
Effective Date of Permit (EDP or EDPM)	The date this permit is in effect.
Effluent Limitations	Effluent limitation means any restriction on quantities, quality, rates and concentrations of chemical, physical, biological, and other constituents of effluents that are discharged into waters of the state.
Expiration Date of Permit (ExDP)	The date this permit is no longer in effect.
Instantaneous Maximum	The maximum level that may not be exceeded at any instant in time.
Instantaneous Minimum	The minimum level that must be maintained at all instants in time.
Monthly Average	The highest allowable average of daily discharges over a calendar month, calculated as the sum of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
Outfall	The terminus of a sewer system, or the point of emergence of any waterborne sewage, industrial waste or other wastes or the effluent therefrom, into the waters of the State.
Range	The minimum and maximum instantaneous measurements for the reporting period must remain between the two values shown.
Receiving Water	The classified waters of the state to which the listed outfall discharges.
Sample Frequency / Sample Type / Units	See DEC'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 (PR-622)	Groundwater Construction Dewatering	Upper New York Bay	<b>DRAFT</b>	<b>DRAFT</b>

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Daily Maximum	Monitor	MGD	0.69	MGD	Continuous	Recorder		X	
pH	Daily Minimum	6.0	SU			Daily	Grab		X	
	Daily Maximum	9.0	SU							
Total Suspended Solids (TSS)	Monthly Average	20	mg/L			Monthly	Grab	X	X	1
Total Suspended Solids (TSS)	Daily Maximum	40	mg/L			Monthly	Grab	X	X	1
Oil & Grease	Monthly Average	15	mg/L			Monthly	Grab		X	
Total Mercury	Daily Maximum	50	ng/L			Monthly	Grab	X	X	
Total Copper	Daily Maximum	67	ug/L			Monthly	Grab	X	X	2
Total Lead	Daily Maximum	84	ug/L			Monthly	Grab	X	X	3
Total Zinc	Daily Maximum	420	ug/L			Monthly	Grab	X	X	

## PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
002 (PR-014)	Groundwater Construction Dewatering	Upper New York Bay	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Daily Maximum	Monitor	MGD	1.01	MGD	Continuous	Recorder		X	
pH	Daily Minimum	6.0	SU			Daily	Grab		X	
	Daily Maximum	9.0	SU							
Total Suspended Solids (TSS)	Monthly Average	20	mg/L			Monthly	Grab	X	X	1
Total Suspended Solids (TSS)	Daily Maximum	40	mg/L			Monthly	Grab		X	1
Oil & Grease	Monthly Average	15	mg/L			Monthly	Grab		X	
Total Mercury	Daily Maximum	50	ng/L			Monthly	Grab	X	X	
Total Copper	Daily Maximum	67	ug/L			Monthly	Grab	X	X	2
Total Lead	Daily Maximum	84	ug/L			Monthly	Grab	X	X	3
Total Zinc	Daily Maximum	420	ug/L			Monthly	Grab	X	X	
ACTION LEVEL PARAMETERS	Type	Action Level	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Benzene	Daily Maximum	Monitor	ug/L	5	lbs/d	Monthly	Grab	X	X	4
Toluene	Daily Maximum	Monitor	ug/L	5	lbs/d	Monthly	Grab	X	X	4
Ethylbenzene	Daily Maximum	Monitor	ug/L	5	lbs/d	Monthly	Grab	X	X	4
Xylene	Daily Maximum	Monitor	ug/L	5	lbs/d	Monthly	Grab	X	X	4
Tetrachloroethylene	Daily Maximum	Monitor	ug/L	10	lbs/d	Monthly	Grab	X	X	4
MTBE	Daily Maximum	Monitor	ug/L	Monitor	lbs/d	Monthly	Grab	X	X	4

### FOOTNOTES:

- Effluent shall not exceed 15% of influent concentration values for TSS.
- This is a Compliance Level. The calculated WQBEL is 67.
- This is a Compliance Level. The calculated WQBEL is 84.
- Action Levels: If the action level is exceeded, the additional monitoring requirement is triggered, and the permittee shall undertake a short-term, high-intensity, monitoring program for the respective parameter(s). Samples identical to those required for routine monitoring purposes shall be taken on each of at least three consecutive days and analyzed. Results shall be expressed in both mass and concentration. If levels higher than the action levels are confirmed, the permittee shall evaluate the treatment system operation and identify and employ actions to reduce concentrations present in the discharge. The permit may also be reopened by the DEC for consideration of revised action levels or effluent limits. Action level monitoring results and the effectiveness of the actions taken shall be summarized and submitted with the monthly operating report [or DMR] data.

## SPECIAL CONDITIONS

### 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.

- 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 DEC as required in item (2.) below and a copy must be maintained at the facility and shall be available to authorized DEC representatives upon request.
- 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 DEC 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.
- 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.
- 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.

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## 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>
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- (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.



# MONITORING LOCATIONS

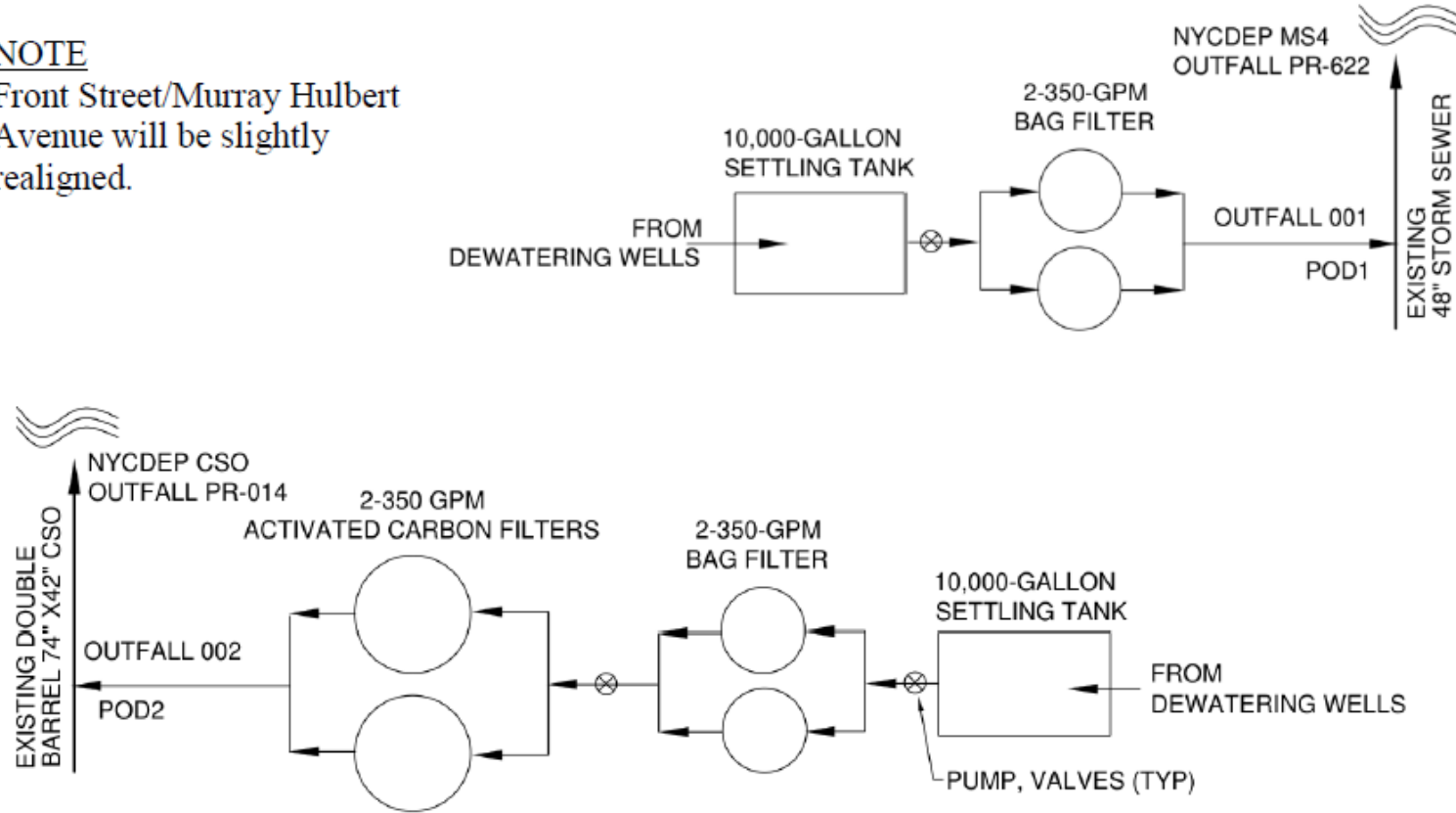
The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the location(s) specified below:

Influent: Prior To Settling Tank

Effluent: After the Effluent Pump

## NOTE

Front Street/Murray Hulbert Avenue will be slightly realigned.



## PRETREATMENT PLAN AT EACH OUTFALL

# 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: Prior To Settling Tank

Effluent: After the Effluent Pump



**DEWATERING PLAN FOR NEW STAPLETON WATERFRONT DEVELOPMENT - NORTHERN & SOUTHERN PHASES**  
**STATEN ISLAND, NEW YORK**  
September 13, 2023

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

## RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

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

DMRs must be submitted electronically using the electronic reporting tool (NetDMR) specified by DEC. Instructions on the use of NetDMR can be found at <https://www.dec.ny.gov/chemical/103774.html>. **Hardcopy paper DMRs will only be accepted 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 Regional Water Engineer and Bureau of Water Permits at the following addresses:

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

Department of Environmental Conservation  
Regional Water Engineer, Region 2  
One Hunters Point Plaza, Long Island City, New York, 11101-5407      Phone: (718) 482-4933

- D. Annual SPDES Monitoring Reports: An annual report shall be submitted to DEC by February 1<sup>st</sup> each year. The report shall summarize information for January to December of the previous year and shall be submitted electronically, or in hardcopy format, utilizing the SPDES Annual Report Form available on the DEC's website.

Hard copy submission of the Annual Report shall be submitted to the Regional Water Engineer at the address below:

Department of Environmental Conservation  
Regional Water Engineer, Region 2  
One Hunters Point Plaza, Long Island City, New York, 11101-5407      Phone: (718) 482-4933

- 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.

**SPDES Permit Fact Sheet**  
**New York City Economic**  
**Development Corporation**  
**(NYCEDC)**  
**New Stapleton Waterfront**  
**Development**  
**NY0277274**



Department of  
Environmental  
Conservation

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## Summary of Permit Application

A new State Pollutant Discharge Elimination System (SPDES) permit has been drafted for the New Stapleton Waterfront Development.

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

## Administrative History

10/19/2023 The New York City Economic Development Corporation (NYCEDC) 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(s) 1794, 1623) that produces effluent and is subject to categorical effluent limit guidelines (ELG) (see summary table at the end of this factsheet). Effluent consists of groundwater. The current treatment system will be constructed in 2024 to provide a groundwater treatment system and includes the following treatment units:

- Primary Treatment: Settling Tank
- Secondary Treatment: Bag Filters
- Tertiary Treatment: Activated carbon Filters

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

Significant Industrial User (SIU)	SIC Code	Categorical Reference (if applicable to 40 CFR)
Excavation work	1794	NA
Water, Sewer, Pipeline, and Communications and Power Line Construction	1623	NA

### Site Overview

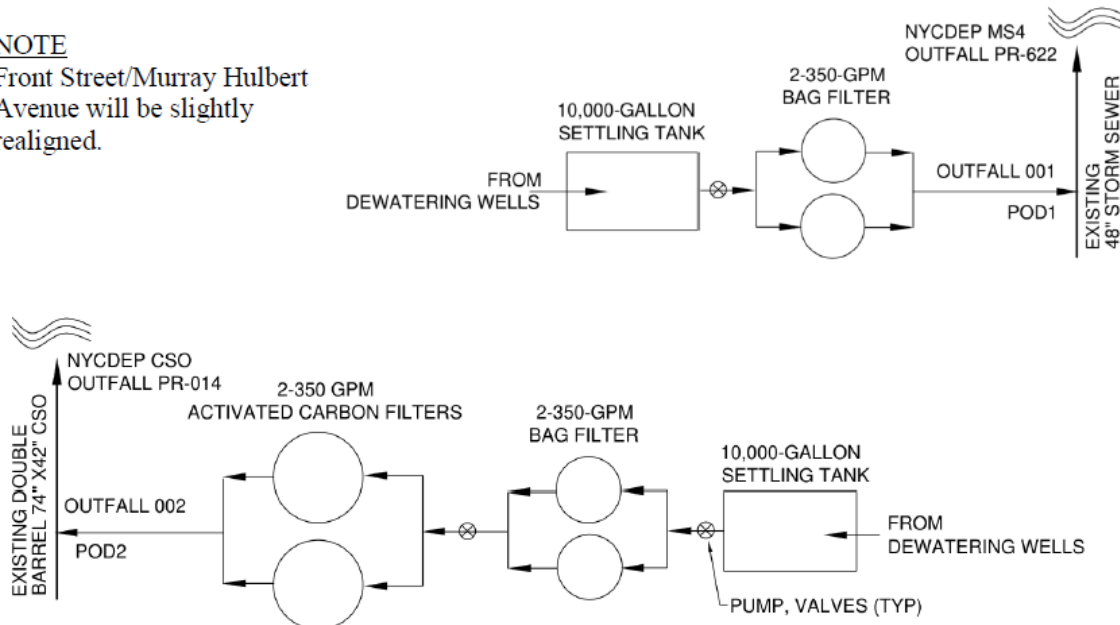


**DEWATERING PLAN FOR NEW STAPLETON WATERFRONT DEVELOPMENT - NORTHERN & SOUTHERN PHASES**  
**STATEN ISLAND, NEW YORK**  
September 13, 2023



**NOTE**

Front Street/Murray Hulbert Avenue will be slightly realigned.



**PRETREATMENT PLAN AT EACH OUTFALL**

**Existing Effluent Quality**

The [Pollutant Summary Table](#) presents the existing effluent quality and effluent limitations. The existing effluent quality was determined from the application submitted by the permittee on 9/18/2023.

**Receiving Water Information**

The facility proposes to discharge via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001 (PR-622)	1794 1623	Municipal Separate Storm Sewer System (MS4)	Upper New York Bay, Class I
002 (PR-014)	1794 1623	Combined Sewer Overflow (CSO)	Upper New York Bay, Class I

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

The Upper New York Bay segment (PWL No. 1701-0022) was first listed on the 1996 [New York State Section 303\(d\) List](#) of Impaired/TMDL Waters as impaired due to Dioxin; PCBs and Other Toxics from Historical Data Source. The segment continues to be listed as of the 2018 NYS Section 303(d) List. A TMDL has not been developed to address the impairment and, therefore, there are no applicable waste load allocations (WLAs) for this facility.

## Permit Requirements

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

### [Appendix Link](#)

### Antidegradation

The permit contains effluent limitations which ensure that the best usages of the receiving waters will be maintained. The Notice of Complete Application published in the Environmental Notice Bulletin contains information on the State Environmental Quality Review (SEQR)<sup>1</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 new.

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

DRAFT

## 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 PR-622	40° 38' 06" N	74° 04' 23" W	Upper New York Bay	I	(MW1.3) UB	17/01	-	-	-	-	0.69	-	-	-
002 PR-014	40° 37' 51" N	74° 04' 23" W	Upper New York Bay	I	(MW1.3) UB	17/01	-	-	-	-	1.01	-	-	-

## POLLUTANT SUMMARY TABLE

### Outfall 001 (PR-622)

Outfall #	001 PR-622 Description of Wastewater: Groundwater Construction Dewatering															
	Type of Treatment: Settling															
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality <sup>2</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 8/7/2023 to 8/21/2023 was obtained from the 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. The technology based effluent limitations (TBELs) were developed from TOGS 1.2.1 Att.C, for category B (lime, settle & filter) treatment systems.																
Flow Rate	MGD	Daily Max	Monitor	PR-622 Actual Average	-	0.69	Design Flow	Narrative: No alterations that will impair the waters for their best usages.						703.2	-	Monitor
		Consistent with 40CFR Part 133.102 and TOGS 1.3.3, a monthly average flow limitation equal to the average daily design capacity of the treatment plant is specified.														
pH	SU	Minimum	6.0	7.1 Actual Min	4/0	6.0	TOGS 1.2.1	-	6.5 – 8.5	Range	6.5 - 8.5	703.3	-	TBEL		
		Maximum	9.0	7.6 Actual Max	4/0	9.0										
Consistent with TOGS 1.2.1, TBELs reflect the available treatment technology listed in Attachment C. Given the available dilution, an effluent limitation equal to the TBEL is protective of the WQS. Additionally, consistent with NYCRR 703.3, the normal range shall not be extended by more than one-tenth (0.1) of a pH unit.																
Total Suspended Solids (TSS)	mg/L	Monthly Avg	20	-	-	20	TOGS 1.2.1	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.				703.2	-	TBEL	

Outfall #	001 PR-622		Description of Wastewater: Groundwater Construction Dewatering												
	Type of Treatment: Settling														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>2</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		
		Daily Max	40	1280	4/0	40	TOGS 1.2.1								
Consistent with TOGS 1.2.1, TBELs reflect the available treatment technology listed in Attachment C. Given the available dilution, an effluent limitation equal to the TBEL, and consistent with TOGS 1.3.3, is protective of water quality standards.															
Oil & Grease	mg/L	Monthly	15	2.32	2/2	15	TOGS 1.2.1	-	Narrative: No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film nor globules of grease.			703.2	-	TBEL	
Mercury, Total	ng/L	Daily Max	50	24.5	4/0	50	TOGS 1.3.10	-	-	0.7	H(FC)	-	-	-	TBEL
<b>Additional Pollutants Detected</b>															
Total Copper	ug/L	Daily Max	67	9.76	3/1	1300/610	TOGS 1.2.1	-	-	5.6(c); 7.9(a)	A(C); A(A)	67.48(Total)	703.5	-	WQBEL
	Consistent with 40 CFR 122.45 (C) Metals. All permit effluent limitations, standards, or prohibitions for metals shall be expressed in terms of "total recoverable metal" as defined in 40 CFR part 136. A default dilution of 10:1 per TOGS 1.3.1 was used to calculate effluent limits. The WQBEL was calculated from the chronic water quality standard, dilution ratio, and an assumed negligible upstream ambient concentration. A metals translator of 1.205 was applied to convert from the dissolved to total form in accordance with the EPA Document 823-B-96-007.														
Total Lead	ug/L	Daily Max	84	325	4/0	280/130	TOGS 1.2.1	-	-	8.0(c); 204(a)	A(C); A(A)	84.16(Total)	703.5	-	WQBEL
	Consistent with 40 CFR 122.45 (C) Metals. All permit effluent limitations, standards, or prohibitions for metals shall be expressed in terms of "total recoverable metal" as defined in 40 CFR part 136. A default dilution of 10:1 per TOGS 1.3.1 was used to calculate effluent limits. The WQBEL was calculated from the chronic water quality standard, dilution ratio, and an assumed negligible upstream ambient concentration. A metals translator of 1.052 was applied to convert from the dissolved to total form in accordance with the EPA Document 823-B-96-007.														
Total Zinc	ug/L	Daily Max	420	313	4/0	1000/420	TOGS 1.2.1	-	-	66	A(C)	697.62(Total)	703.5	-	TBEL
	Consistent with 40 CFR 122.45 (C) Metals. All permit effluent limitations, standards, or prohibitions for metals shall be expressed in terms of "total recoverable metal" as defined in 40 CFR part 136. A default dilution of 10:1 per TOGS 1.3.1 was used to calculate effluent limits. The WQBEL was calculated from the chronic water quality standard, dilution ratio, and an assumed negligible upstream ambient concentration. A metals translator of 1.057 was applied to convert from the dissolved to total form in accordance with the EPA Document 823-B-96-007.														

## POLLUTANT SUMMARY TABLE

### Outfall 002 (PR-014)

Outfall #	002 PR-014		Description of Wastewater: Groundwater Construction Dewatering													
	Type of Treatment: Settling, Filtration, Carbon Absorption															
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality <sup>3</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 8/7/2023 to 8/21/2023 was obtained from the 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. The technology based effluent limitations (TBELs) were developed from TOGS 1.2.1 Att.C, for category H (carbon adsorption) treatment systems.																
Flow Rate	MGD	Daily Max	Monitor	PR-014 Actual Average	-	1.01	Design Flow	Narrative: No alterations that will impair the waters for their best usages.						703.2	-	Monitor
		Consistent with 40CFR Part 133.102 and TOGS 1.3.3, a monthly average flow limitation equal to the average daily design capacity of the treatment plant is specified.														
pH	SU	Minimum	6.0	7.1 Actual Min	4/0	6.0	TOGS 1.2.1	-	6.5 – 8.5	Range	6.5 - 8.5	703.3	-	TBEL		
		Maximum	9.0	7.6 Actual Max	4/0	9.0		Consistent with TOGS 1.2.1, TBELs reflect the available treatment technology listed in Attachment C. Given the available dilution, an effluent limitation equal to the TBEL is protective of the WQS. Additionally, consistent with NYCRR 703.3, the normal range shall not be extended by more than one-tenth (0.1) of a pH unit.								
Total Suspended Solids (TSS)	mg/L	Monthly Avg	20	-	-	20	TOGS 1.2.1	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.			703.2	-	TBEL		
		Daily Max	40	1280	4/0	40	TOGS 1.2.1									
Consistent with TOGS 1.2.1, TBELs reflect the available treatment technology listed in Attachment C. Given the available dilution, an effluent limitation equal to the TBEL, and consistent with TOGS 1.3.3, is protective of water quality standards.																
Oil & Grease	mg/L	Monthly	15	2.32	2/2	15	TOGS 1.2.1	-	Narrative: No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film nor globules of grease.			703.2	-	TBEL		
Mercury, Total	ng/L	Daily Max	50	24.5	4/0	50	TOGS 1.3.10	-	-	0.7	H(FC)	-	-	TBEL		

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

Outfall #	002 PR-014		Description of Wastewater: Groundwater Construction Dewatering												
	Type of Treatment: Settling, Filtration, Carbon Absorption														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>4</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>Additional Pollutants Detected</b>															
Copper, Total	ug/L	Daily Max	67	9.76	3/1	1300/610	TOGS 1.2.1	-	-	5.6(c); 7.9(a)	A(C); A(A)	67.48(Total)	<a href="#">703.5</a>	-	WQBEL
	Consistent with 40 CFR 122.45 (C) Metals. All permit effluent limitations, standards, or prohibitions for metals shall be expressed in terms of "total recoverable metal" as defined in 40 CFR part 136. A default dilution of 10:1 per TOGS 1.3.1 was used to calculate effluent limits. The WQBEL was calculated from the chronic water quality standard, dilution ratio, and an assumed negligible upstream ambient concentration. A metals translator of 1.205 was applied to convert from the dissolved to total form in accordance with the EPA Document 823-B-96-007.														
Lead, Total	ug/L	Daily Max	84	325	4/0	280/130	TOGS 1.2.1	-	-	8.0(c); 204(a)	A(C); A(A)	84.16(Total)	<a href="#">703.5</a>	-	WQBEL
	Consistent with 40 CFR 122.45 (C) Metals. All permit effluent limitations, standards, or prohibitions for metals shall be expressed in terms of "total recoverable metal" as defined in 40 CFR part 136. A default dilution of 10:1 per TOGS 1.3.1 was used to calculate effluent limits. The WQBEL was calculated from the chronic water quality standard, dilution ratio, and an assumed negligible upstream ambient concentration. A metals translator of 1.052 was applied to convert from the dissolved to total form in accordance with the EPA Document 823-B-96-007.														
Zinc, Total	ug/L	Daily Max	420	313	4/0	1000/420	TOGS 1.2.1	-	-	66	A(C)	697.62(Total)	<a href="#">703.5</a>	-	TBEL
	Consistent with 40 CFR 122.45 (C) Metals. All permit effluent limitations, standards, or prohibitions for metals shall be expressed in terms of "total recoverable metal" as defined in 40 CFR part 136. A default dilution of 10:1 per TOGS 1.3.1 was used to calculate effluent limits. The WQBEL was calculated from the chronic water quality standard, dilution ratio, and an assumed negligible upstream ambient concentration. A metals translator of 1.057 was applied to convert from the dissolved to total form in accordance with the EPA Document 823-B-96-007.														
Benzene	ug/L	Daily Max	5	-	0/4	5	TOGS 1.2.1	-	-	10	H(FC)	100	<a href="#">703.5</a>	-	Action Level
	Consistent with 40 CFR 122.45 (C) Metals. All permit effluent limitations, standards, or prohibitions for metals shall be expressed in terms of "total recoverable metal" as defined in 40 CFR part 136. A default dilution of 10:1 per TOGS 1.3.1 is used to calculate effluent limits														
Toluene	ug/L	Daily Max	5	-	0/4	5	TOGS 1.2.1	-	-	6,000	H(FC)	60,000	<a href="#">703.5</a>	-	Action Level
	Consistent with 40 CFR 122.45 (C) Metals. All permit effluent limitations, standards, or prohibitions for metals shall be expressed in terms of "total recoverable metal" as defined in 40 CFR part 136. A default dilution of 10:1 per TOGS 1.3.1 is used to calculate effluent limits														
Ethylbenzene	ug/L	Daily Max	5	-	0/4	5	TOGS 1.2.1	-	-	5	H(W)	50	<a href="#">703.5</a>	-	Action Level
	Consistent with 40 CFR 122.45 (C) Metals. All permit effluent limitations, standards, or prohibitions for metals shall be expressed in terms of "total recoverable metal" as defined in 40 CFR part 136. A default dilution of 10:1 per TOGS 1.3.1 is used to calculate effluent limits														

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

Outfall #	002 PR-014	Description of Wastewater: Groundwater Construction Dewatering													
		Type of Treatment: Settling, Filtration, Carbon Absorption													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>4</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		
Xylene	ug/L	Daily Max	5	-	0/4	5	TOGS 1.2.1	-	-	19	-	190	-	-	Action Level
	Consistent with 40 CFR 122.45 (C) Metals. All permit effluent limitations, standards, or prohibitions for metals shall be expressed in terms of "total recoverable metal" as defined in 40 CFR part 136.														
Tetrachloroethylene	ug/L	Daily Max	10	16	1/3	10-50	TOGS 1.2.1	-	-	-	-	-	-	-	Action Level
	Consistent with 40 CFR 122.45 (C) Metals. All permit effluent limitations, standards, or prohibitions for metals shall be expressed in terms of "total recoverable metal" as defined in 40 CFR part 136.														
MTBE	ug/L	Daily Max	Monitor	0.29	2/2	50	TOGS 1.2.1	-	-	-	-	-	-	-	Action Level
	Consistent with 40 CFR 122.45 (C) Metals. All permit effluent limitations, standards, or prohibitions for metals shall be expressed in terms of "total recoverable metal" as defined in 40 CFR part 136.														

## Appendix: Regulatory and Technical Basis of Permit Authorizations

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

### Regulatory References

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

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

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

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

### Outfall and Receiving Water Information

#### Impaired Waters

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



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

### 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, 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.

#### Antidegradation Policy

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

#### Effluent Limitations

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

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

A TBEL requires a minimum level of treatment for industrial point sources based on currently available treatment technologies 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 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 DEC 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. Additionally, 6 NYCRR Part 701.1 prohibits the discharge of pollutants that will cause impairment of the best usages of the receiving water as specified by the water classifications at the location of discharge and at other locations that may be affected by such discharge. Water quality standards can be found under 6 NYCRR Parts 700-704. The limitations must be stringent enough to ensure that water quality standards are met at the point of discharge and in downstream waters and must be consistent with any applicable WLA which may be in effect through a TMDL for the receiving water. These and other requirements are summarized in TOGS 1.1.1, 1.3.1, 1.3.2, 1.3.5 and 1.3.6. The DEC considers a mixing zone analysis, critical flows, and reasonable potential analysis when developing a WQBEL.

#### [Mixing Zone Analyses](#)

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

#### [Critical Flows](#)

In accordance with TOGS 1.2.1 and 1.3.1, WQBELs are developed using dilution ratios that relate the critical low flow condition of the receiving waterbody to the critical effluent flow. The critical low flow condition used in the dilution ratio will be different depending on whether the limitations are for aquatic or human health protection. For chronic aquatic protection, the critical low flow condition of the waterbody is typically represented by the 7Q10 flow and is calculated as the lowest average flow over a 7-day consecutive period within 10 years. For acute aquatic protection, the critical low flow condition is typically represented by the 1Q10 and is calculated as the lowest 1-day flow within 10 years. However, NYSDEC considers using 50% of the 7Q10 to be equivalent to the 1Q10 flow. For the protection of human health, the critical low flow condition is typically represented by the 30Q10 flow and is calculated as the lowest average flow over a 30-day

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

#### Reasonable Potential Analysis (RPA)

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

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

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

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

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

discharges of conservative toxic pollutants to ensure water quality standards are met in downstream segments.

### *Minimum Level of Detection*

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

### *Monitoring Requirements*

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