



# State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

|                           |                |                            |                           |               |                  |
|---------------------------|----------------|----------------------------|---------------------------|---------------|------------------|
| SIC Code:                 | <b>4941</b>    | NAICS Code:                | <b>221310</b>             | SPDES Number: | <b>NY0106879</b> |
| Discharge Class (CL):     | <b>01</b>      | DEC Number:                | <b>1-2820-06177/00004</b> |               |                  |
| Toxic Class (TX):         | <b>N</b>       | Effective Date (EDP):      |                           |               |                  |
| Major-Sub Drainage Basin: | <b>17 - 01</b> | Expiration Date (ExDP):    |                           |               |                  |
| Water Index Number:       | <b>MDB-RC</b>  | Item No.:                  | <b>885 - 168</b>          |               |                  |
| Compact Area:             | <b>IEC</b>     | Modification Dates (EDPM): |                           |               |                  |

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>Liberty Utilities (New York Water) Corp.</b>  |  |  | Attention: | <b>Richard Kern, Senior Manager-Production</b> |                        |
| Street:                    | <b>60 Brooklyn Avenue</b>  |  |  |            |  |                        |
| City:                      | <b>Merrick</b>   |  |  | State:     | <b>NY</b>                                      | Zip Code: <b>11566</b> |
| Email:                     | <a href="mailto:Richard.Kern@libertyutilities.com">Richard.Kern@libertyutilities.com</a> |  |  | Phone:     | <b>516-596-4801</b>                            |                        |

is authorized to discharge from the facility described below:

| FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL |  |                  |                         |                 |               |              |               |                |                |           |          |
|---|--|------------------|-------------------------|-----------------|---------------|--------------|---------------|----------------|----------------|-----------|----------|
| Name:                                       | <b>Liberty New York Water Plant No.6</b> |                  |                         |                 |               |              |               |                |                |           |          |
| Address / Location:                         | <b>1540 Beech Street</b>                 |                  |                         |                 |               |              | County:       | <b>Nassau</b>  |                |           |          |
| City:                                       | <b>Atlantic Beach</b>                    |                  |                         |                 | State:        | <b>NY</b>    |               | Zip Code:      | <b>11509</b>   |           |          |
| Facility Location:                          | Latitude:                                | <b>40</b> °      | <b>35</b> '             | <b>15.5</b> " N | & Longitude:  | <b>73</b> °  | <b>43</b> '   | <b>5.0</b> " W |                |           |          |
| Primary Outfall No.:                        | <b>001</b>                               | Latitude:        | <b>40</b> °             | <b>35</b> '     | <b>22</b> " N | & Longitude: | <b>73</b> °   | <b>43</b> '    | <b>9.5</b> " W |           |          |
| Wastewater Description:                     | <b>Iron Backwash</b>                     | Receiving Water: | <b>Reynolds Channel</b> |                 |               | NAICS:       | <b>221310</b> | Class:         | <b>SB</b>      | Standard: | <b>-</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:**

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

|                       |   |  |
|-----------------------|---|--|
| Permit Administrator: |   |  |
| Address:              | <b>50 Circle Road, Stony Brook NY 11790</b> |  |
|                       |   |  |
| Signature             | Date  |  |

## Contents

|  |    |
|--|----|
| DEFINITIONS .....  | 3  |
| PERMIT LIMITS, LEVELS AND MONITORING .....                       | 4  |
| BEST MANAGEMENT PRACTICES (BMPs) FOR INDUSTRIAL FACILITIES ..... | 5  |
| MERCURY MINIMIZATION PROGRAM (MMP) - Type IV .....               | 7  |
| DISCHARGE NOTIFICATION REQUIREMENTS .....                        | 9  |
| SCHEDULE OF COMPLIANCE .....                                     | 10 |
| MONITORING LOCATIONS.....  | 12 |
| GENERAL REQUIREMENTS.....  | 13 |
| RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS..... | 14 |
| E. Schedule of Additional Submittals: .....                      | 14 |

DRAFT

## 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     | Iron Filter Backwash | Reynolds Channel |           |          |

| PARAMETER                    | EFFLUENT LIMITATION |         |       |       |       | MONITORING REQUIREMENTS |             |          |      | FN  |
|------------------------------|---------------------|---------|-------|-------|-------|-------------------------|-------------|----------|------|-----|
|                              | Type                | Limit   | Units | Limit | Units | Sample Frequency        | Sample Type | Location |      |     |
|                              |                     |         |       |       |       |                         |             | Inf.     | Eff. |     |
| Flow                         | Daily Maximum       | 0.20    | MGD   | -     | -     | Continuous              | Meter       | -        | X    | -   |
| pH                           | Daily Minimum       | 6.0     | SU    | -     | -     | 1/day                   | Grab        | -        | X    | -   |
|                              | Daily Maximum       | 9.0     | SU    | -     | -     |                         |             |          |      |     |
| Temperature                  | Daily Maximum       | Monitor | °F    | -     | -     | 1/day                   | Grab        | -        | X    | -   |
| Total Suspended Solids (TSS) | Monthly Average     | 20      | mg/L  | 33.4  | lbs/d | 1/month                 | 6-hr. Comp. | -        | X    | 1,3 |
| Total Suspended Solids (TSS) | Daily Maximum       | 40      | mg/L  | 66.7  | lbs/d | 1/month                 | 6-hr. Comp. | -        | X    | 1,3 |
| Settleable Solids            | Daily Maximum       | 0.1     | mL/L  | -     | -     | 1/month                 | Grab        | -        | X    | 1   |
| Chlorine, Total Residual     | Daily Maximum       | 0.03    | mg/L  | -     | -     | 1/day                   | Grab        | -        | X    | 1,2 |

### FOOTNOTES:

1. This is a final effluent limitation. See Schedule of Compliance for any applicable interim effluent limitations.
2. This is a Compliance Level. The calculated WQBEL is 0.0075 mg/L.
3. At least 8 individual manual grab samples must be collected over the course of 6 hours analyzed separately and the concentrations averaged. Alternatively, grab samples may be collected in the field and composited in the laboratory and analyzed as a single sample if the results are equivalent to the arithmetic averaging of individual grab samples. Where effluent flows do not vary more than 10 percent over the course of composite sample collection, composite samples may be composed of equal size grab samples taken at equal time intervals. Where effluent flows do vary more than 10 percent over the course of sample collection, composite samples must be flow-proportioned.

## 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 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.
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 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.
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 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, isolation, or B.A.T. treatment of wastewaters emanating from the segment.

---

<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.

## MERCURY MINIMIZATION PROGRAM (MMP) - Type IV

On 8/5/2024, 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 for Outfall 001 to the Regional Water Engineer and to the Bureau of Water Permits certifying that Outfall(s) 001 for 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.

<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 DEC 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 DEC 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 DEC identifies inadequacies in the MMP.

The DEC 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>PRELIMINARY ENGINEERING REPORT</u><br>The permittee shall submit an approvable <sup>7</sup> Preliminary Engineering Report (PER) that meets the requirements of the EFC/DEC Engineering Report Outline ( <a href="https://www.dec.ny.gov/permits/6054.html">https://www.dec.ny.gov/permits/6054.html</a> ). The report shall describe treatment alternatives or other control mechanisms (i.e., pretreatment program / Sewer Use Law) that may be used to comply with the final effluent limitation(s). | EDP + 12 Months              |
|   | <u>DESIGN DOCUMENTS</u><br>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).   | EDP + 24 Months              |
|   | <u>COMPLETE CONSTRUCTION</u><br>The permittee shall provide a Construction Completion Certification <sup>8</sup> to the DEC (send to the Regional Water Engineer and <a href="mailto:NetDMR@dec.ny.gov">NetDMR@dec.ny.gov</a> ) that the disposal system has been fully completed in accordance with the approved Design Documents.  | EDP + 54 Months              |
|   | <u>COMMENCE OPERATION</u><br>Following receipt of DEC acceptance of the Construction Completion Certification, the permittee shall comply with the final effluent limitation(s) described in this permit.  | Upon Department Acceptance   |
|   | <u>MERCURY MINIMIZATION PROGRAM SAMPLING</u><br>The permittee shall collect at least one (1) effluent sample and analyze for Mercury via EPA Method 1631E .  | EDP + 6 Months               |
| <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 Suspended Solids (TSS)   | Monthly Average        | Monitor | mg/L  | -     | -     | 1/Month                 | 6-hr Comp.  | -        | X | 1     |
| 001     | Total Suspend Solids (TSS)   | Daily Max              | Monitor | mg/L  | -     | -     | 1/Month                 | 6-hr Comp   | -        | X | 1     |
| 001     | Settleable Solids  | Daily Max              | Monitor | mL/L  | -     | -     | 1/Month                 | Grab        | -        | X | 1     |
| 001     | Total, Residual Chlorine   | Daily Max              | Monitor | mg/L  | -     | -     | 1/day                   | Grab        | -        | X | 1     |
| Notes:  | 1. Interim limits expire upon Department acceptance of the Construction Completion Certification |                        |         |       |       |       |                         |             |          |   |       |

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

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

<sup>7</sup> 6 NYCRR 750 1.2 (a)(8)

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

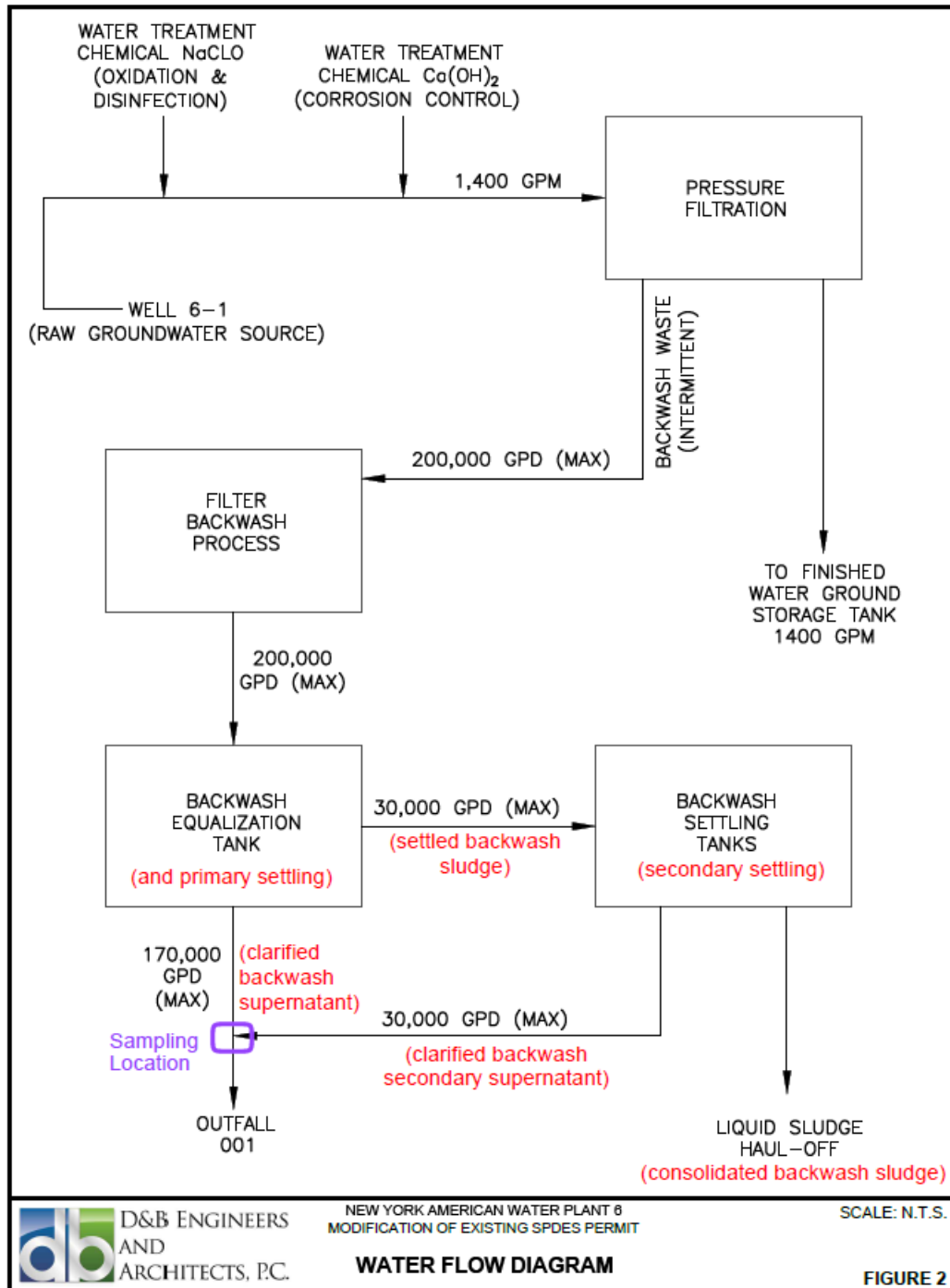
1. A short description of the non-compliance;
  2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirements without further delay and to limit environmental impact associated with the non-compliance;
  3. Any details which tend to explain or mitigate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

DRAFT

# 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:

**Effluent:** Samples to be taken after the backwash settling tank, prior to discharge into Outfall 001



# GENERAL REQUIREMENTS

- A. The regulations in 6 NYCRR Part 750 are hereby incorporated by reference and the conditions are enforceable requirements under this permit. The permittee shall comply with all requirements set forth in this permit and with all the applicable requirements of 6 NYCRR Part 750 incorporated into this permit by reference, including but not limited to the regulations in paragraphs B through 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 1 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: [How To Complete And Submit Discharge Monitoring Reports \(DMRs\) - NYSDEC](#). **Hardcopy paper DMRs will only be accepted if a waiver from the electronic submittal requirements has been granted by DEC to the facility.**

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 1  
50 Circle Road, Stony Brook, New York, 11790-3409 Phone: (631) 444-0405

- 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 1  
50 Circle Road, Stony Brook, New York, 11790-3409 Phone: (631) 444-0405

- E. Schedule of Additional Submittals:

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

| Outfall(s) | SCHEDULE OF ADDITIONAL SUBMITTALS - Required Action  | Due Date                                    |
|------------|--|---|
| 001        | <u>WATER TREATMENT CHEMICAL (WTC) ANNUAL REPORT FORM</u><br>The permittee shall submit a completed WTC Annual Report Form each year that Water Treatment Chemicals are used. The form shall be attached to the December DMR. | January 28 <sup>th</sup><br>each year       |
| 001        | <u>MERCURY MINIMIZATION PLAN</u><br>The permittee must complete and maintain onsite an annual mercury minimization status report in accordance with the requirements of this permit.   | <b>Maintained<br/>Onsite</b>                |
| 001        | <u>MERCURY - CONDITIONAL EXCLUSION CERTIFICATION</u><br>Permittee must submit a mercury conditional exclusion certification every five years in order to maintain MMP Type IV status.  | 8/6/2029 and<br>every 5 years<br>thereafter |

| Outfall(s) | SCHEDULE OF ADDITIONAL SUBMITTALS - Required Action  | Due Date                           |
|------------|--|------------------------------------|
| 001        | <u>BEST MANAGEMENT PRACTICES (BMPs)</u><br>A BMP Plan must be developed and maintained onsite. A copy of the initial BMP plan must be submitted to the Department.   | EDP + 12 months,                   |
| 001        | <u>BEST MANAGEMENT PRACTICES (BMPs) Annual Certification</u><br>The permittee shall submit a certification to indicate that the BMP plan has been reviewed and accurately describes the activities that take place at the site. The certification shall be attached to the December DMR. | January 28 <sup>th</sup> each year |

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

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



Permittee: Liberty Utilities (New York Water) Corp.  
Facility: Liberty New York Water Plant No.6  
SPDES Number: NY0106879  
USEPA Non-Major/Class 01 Industrial

Date: January 6, 2025 v.1.26  
Permit Writer: Helen Cheng  
Water Quality Reviewer: Edward Schneider  
Full Technical Review

**SPDES Permit Fact Sheet**  
**Liberty Utilities (New York**  
**Water) Corp.**  
**Liberty New York Water Plant**  
**No.6**  
**NY0106879**



## Contents

|   |    |
|---|----|
| Summary of Permit Changes .....   | 3  |
| Administrative History .....  | 3  |
| Facility Information .....  | 3  |
| Site Overview .....   | 4  |
| Existing Effluent Quality .....   | 4  |
| Receiving Water Information.....  | 5  |
| Impaired Waterbody Information .....                                    | 5  |
| Critical Receiving Water Data & Mixing Zone .....                       | 5  |
| Permit Requirements .....   | 6  |
| Anti-backsliding .....  | 6  |
| Antidegradation .....   | 6  |
| Discharge Notification Act Requirements.....                            | 6  |
| Best Management Practices (BMPs) for Industrial Facilities.....         | 6  |
| Mercury .....   | 6  |
| Schedule of Compliance .....  | 7  |
| Schedule of Additional Submittals.....                                  | 7  |
| OUTFALL AND RECEIVING WATER SUMMARY TABLE.....                          | 8  |
| POLLUTANT SUMMARY TABLE .....   | 8  |
| Outfall 001 .....   | 8  |
| Appendix: Regulatory and Technical Basis of Permit Authorizations ..... | 10 |
| Regulatory References.....  | 10 |
| Outfall and Receiving Water Information.....                            | 10 |
| Interstate Water Pollution Control Agencies.....                        | 11 |
| Existing Effluent Quality .....   | 11 |
| Permit Requirements.....  | 11 |

## Summary of Permit Changes

A State Pollutant Discharge Elimination System (SPDES) permit has been drafted for the Liberty New York Water Plant No.6. The changes to the permit are summarized below:

- Updated permit format, definitions, and general conditions
- Added monitoring for Temperature
- Added limit for Total Suspended Solids, Settleable Solids, and Total Residual Chlorine

**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

10/01/2012 SPDES Permit Issued with Effective Date of 10/1/2008 and Expiration Date of 9/30/2013.

1/1/2021 The last full technical review was performed during the review of a permittee-initiated modification for the installation of additional backwash settling tanks and the SPDES permit term was not extended (10/29/2018 – 9/30/2023). The 2021 permit, along with all subsequent modifications has formed the basis of this permit.

The permit was administratively renewed in 2013 and again in 2018. The current permit administrative renewal is effective until 2023.

9/30/2023 The SPDES permit expired.

5/23/2024 The Liberty Utilities (New York Water) Corp. submitted a new NY-2C permit application to renew the expired permit.

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

## Facility Information

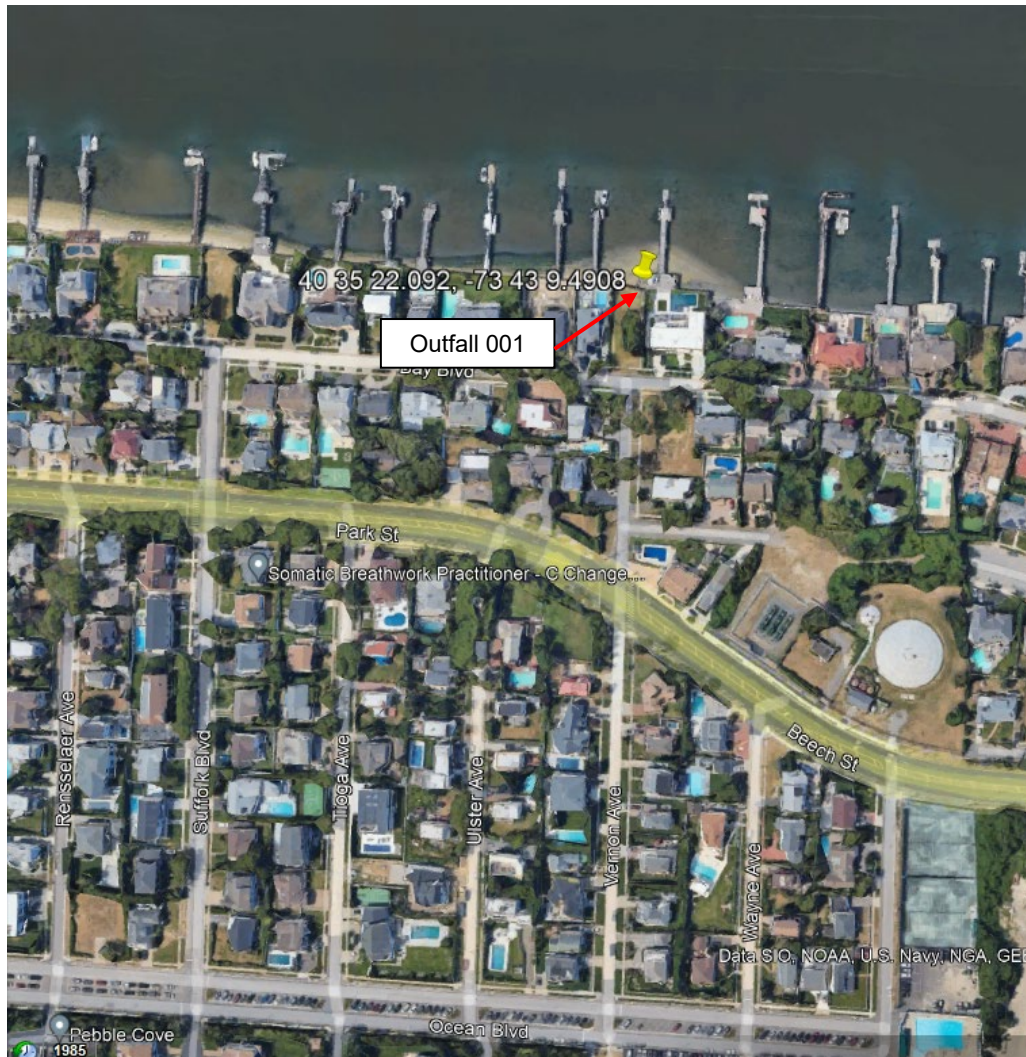
This is a municipal water treatment facility that filters iron from its well water via pressure filtration prior to municipal distribution. The pressure filters are periodically backwashed, and the backwashed water is discharged to a municipal storm sewer which drains to Reynolds Channel at Outfall 001.

This is an industrial facility (SIC code(s) 4941) that produces potable water. Effluent consists of water resulting from the backwash of the iron removal filters. The current treatment system includes the following treatment units:

- Equalization Tank
- 3 (18,000 gallon) Settling Tanks

Sludge is collected and disposed of off-site as a liquid waste. The outfall is a 30-inch diameter drainage pipe that discharges to Reynolds Channel.

## Site Overview



## Existing Effluent Quality

The [Pollutant Summary Table](#) presents the existing effluent quality and effluent limitations. The existing effluent quality was determined from EPA ICIS for the period 1/1/2021 to 6/30/2024. The facility only had 4 months of discharge 6/1/2023-9/30/2023. [Appendix Link](#)



## Receiving Water Information

The facility discharges via the following outfalls:

| Outfall No. | SIC Code | Wastewater Type      | Receiving Water            |
|-------------|----------|----------------------|----------------------------|
| 001         | 4941     | Iron filter backwash | Reynolds Channel, Class SB |

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

## Impaired Waterbody Information

The Reynolds Channel, West segment (PWL No. 1701-0216) was first listed on the 2014 [New York State Section 303\(d\) List](#) of Impaired/TMDL Waters as impaired due to Nitrogen from Municipal, Bay Park. The segment continues to be listed as of the 2022 NYS Section 303(d) List. A TMDL has not been developed to address the impairment and, therefore, there are no applicable wasteload allocations (WLAs) for this facility.

## Critical Receiving Water Data & Mixing Zone



Image 1 Outfall 001 (Taken on 8/28/2024, 9:32 am)

Outfall 001 discharges to Reynolds Channel, which is a classified tidal waterbody. Department Guidance (TOGS 1.3.1) states that a dilution ratio of 10:1 is appropriate for a fully submerged outfall discharging directly into a tidal waterbody. The discharge terminus point for this outfall is at the shoreline (bank discharge) and, therefore, the effluent mixing with the tidal waterbody will take place along the shoreline rather than the open waters of the estuary. The mixing intensity will be reduced due to low momentum of the discharge resulting in less dilution than the specified guidance value. The effluent also has a high chance to infiltrate into the sand losing all its momentum resulting in no mixing occurring. Therefore, a dilution ratio of 1:1 for acute, chronic, and HEW protections is appropriate and has been included in the draft permit. The image of the outfall located above was taken on August 28th, 2024, at 9:32 AM (low tide).

| Outfall No. | Acute Dilution Ratio A(A) | Chronic Dilution Ratio A(C) | Human, Aesthetic, Wildlife Dilution Ratio (HEW) | Basis            |
|-------------|---------------------------|-----------------------------|---|------------------|
| 001         | 1:1                       | 1:1                         | 1:1   | TOGS 1.3.1 (BPJ) |

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](#).

### 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>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 being continued from the previous permit.

Additionally, the permit contains a requirement to make the DMR sampling data available to the public upon request. This requirement is being continued from the previous permit.

### 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.

### Mercury<sup>2</sup>

The multiple discharge variance (MDV) for mercury provides the framework for DEC to require mercury monitoring and mercury minimization programs (MMPs), through SPDES permitting.

### [Appendix Link](#)

<sup>1</sup> As prescribed by 6 NYCRR Part 617

<sup>2</sup> In accordance with DOW 1.3.10 Mercury – SPDES Permitting & Multiple Discharge Variance (MDV), December 30, 2020.

The facility is not located in the Great Lakes Basin and does not have a mercury source. On 8/5/2024, 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 of Compliance

A Schedule of Compliance is being included<sup>3</sup> for the following items ([Appendix Link](#)):

- A Mercury Minimization Type IV will be implemented and the facility will be required to take at least 1 sample for mercury within the first 6 months of operation.
- Compliance period for attainment of final effluent limits at Outfall 001 for total suspended solids, settleable solids, and total residual chlorine. The numerical limits were added and a major modification to the treatment facility or operations may be needed and will take a significant amount of time to properly plan, design, fund, and build.

### Schedule of Additional Submittals

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

- Water Treatment Chemical (WTC) Annual Report Form
- Mercury Minimization Program Annual Status Report
- Mercury – Conditional Exclusion Certification
- Best Management Practices (BMPs)
- Best Management Practices (BMPs) Annual Certification

---

<sup>3</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     | 40° 35' 22.092" N | 73° 43' 9.49" W | Reynolds Channel     | SB          | MDB-RC portion PWL:1701-0216                           | 17/01             | N/A             | Tidal Water |            |             | 0.20                         | 1:1            | 1:1  | 1:1 |

## POLLUTANT SUMMARY TABLE

### Outfall 001

| Outfall #   | Description of Wastewater: Iron filter backwash                                |                  |   |  |  |       |                |   |  |               |         |             |       |       |                              |             |
|---|--|------------------|---|--|--|-------|----------------|---|--|---------------|---------|-------------|-------|-------|------------------------------|-------------|
|   | Type of Treatment: Settling Tanks  |                  |   |  |  |       |                |   |  |               |         |             |       |       |                              |             |
| 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 |       |                              |             |
| <b>General Notes:</b> Existing discharge data from 6/1/2023 to 9/30/2023 was obtained from the application and the Discharge Monitoring Reports provided by the permittee. All applicable water quality standards were reviewed for development of the WQBELs. The standard and WQBEL shown below represent the most stringent. The technology based effluent limitations (TBELs) were developed from TOGS 1.2.1 Att.C, for category J (miscellaneous) treatment systems. |  |                  |   |  |  |       |                |   |  |               |         |             |       |       |                              |             |
| Flow Rate   | MGD  | Daily Max        | 0.20  | 0.046 Actual Average                   | 4                                      | 0.2   | Design Flow    | No alterations that will impair the waters for their best usages. |  |               |         |             |       | 703.2 | -                            | Design Flow |
|   | The flow limit is set at the design flow of the wastewater treatment facility. |                  |   |  |  |       |                |   |  |               |         |             |       |       |                              |             |
| pH  | SU   | Minimum          | 6.0   | 7.4 Actual Min                         | 4                                      | 6.0   | 40 CFR 133.102 | -   | -  | -             | -       | -           | 703.3 | -     | TBEL                         |             |
|   |  | Maximum          | 9.0   | 8.35 Actual Max                        | 4                                      | 9.0   |                | -   | -  | -             | -       | -           | -     | -     | -                            | -           |
| Consistent with TOGS 1.2.1, TBELs reflect the available treatment technology listed in Attachment C.  |  |                  |   |  |  |       |                |   |  |               |         |             |       |       |                              |             |
| Temperature   | °F   | Daily Max        | -   | 55 (winter) 80 (summer) Actual Max     | >10                                    | -     | -              | -   | The water temperature at the surface of an estuary shall not be raised to more than 90F at any point |               |         |             | 704.2 | -     | Monitor                      |             |
|   |  |                  | 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>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)

Permittee: Liberty Utilities (New York Water) Corp.  
 Facility: Liberty New York Water Plant No.6  
 SPDES Number: NY0106879  
 USEPA Non-Major/Class 01 Industrial

Date: January 6, 2025 v.1.26  
 Permit Writer: Helen Cheng  
 Water Quality Reviewer: Edward Schneider  
 Full Technical Review

| Outfall #  | Description of Wastewater: Iron filter backwash |                  |                         |  |  |       |            |                             |  |               |         |             |            |      |                              |
|--|---|------------------|-------------------------|--|--|-------|------------|-----------------------------|--|---------------|---------|-------------|------------|------|------------------------------|
|  | Type of Treatment: Settling Tanks               |                  |                         |  |  |       |            |                             |  |               |         |             |            |      |                              |
| 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      |      |                              |
| Total Suspended  | mg/L  | Monthly Avg      | -                       | 81 (Avg)                               | 18/2                                   | 20    | TOGS 1.2.1 | -                           | 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        | -                       | 220 (Max Day)                          | 18/2                                   | 40    | TOGS 1.2.1 |                             |  |               |         |             |            |      |                              |
| Consistent with TOGS 1.2.1, TBELs reflect the available treatment technology listed in Attachment C.   |   |                  |                         |  |  |       |            |                             |  |               |         |             |            |      |                              |
| Settleable Solids  | ml/L  | Daily Max        | -                       | -                                      | -                                      | 0.1   | TOGS 1.2.1 | -                           | None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages. |               |         |             | 703.2      | -    | TBEL                         |
| Consistent with TOGS 1.2.1, TBELs reflect the available treatment technology listed in Attachment C.   |   |                  |                         |  |  |       |            |                             |  |               |         |             |            |      |                              |
| Total Residual Chlorine (TRC)  | mg/L  | Daily Max        | -                       | -                                      | -                                      | 2.0   | TOGS 1.3.3 | -                           | -  | 0.0075        | A(C)    | 0.0075      | 703.5      | 0.03 | ML                           |
| Seasonal effluent disinfection is being added to the permit. Due to the low dilution, the calculated WQBEL is less than the TBEL and less than the minimum level of detection. Therefore, an effluent limitation equal to the minimum level of detection of 0.030 mg/L is appropriate. |   |                  |                         |  |  |       |            |                             |  |               |         |             |            |      |                              |
| <b>Additional Pollutants Detected</b>  |   |                  |                         |  |  |       |            |                             |  |               |         |             |            |      |                              |
| 1-4 Dioxane  | ug/L  | Daily Max        | -                       | 0.035                                  | 1/1                                    |       |            | -                           | -  | 7,000         | A(C)    | -           | TOGS 1.1.1 | -    | No Limitation                |
| 1-4 Dioxane was detected as reported in the NY-2C application. The detected amount is orders of magnitude below the water quality standard for therefore no limit is required.   |   |                  |                         |  |  |       |            |                             |  |               |         |             |            |      |                              |
| Iron, Total  | mg/L  | Daily Max        | -                       | 66.2                                   | 4/0                                    |       |            | -                           | -  | -             | -       | -           | -          | -    | No Limitation                |
| Iron was detected as reported in the NY-2C application. No water quality standard exists for Iron, Total to Class SB waterbodies. Therefore, no limitation is being imposed.   |   |                  |                         |  |  |       |            |                             |  |               |         |             |            |      |                              |
| Manganese, Total   | mg/L  | Daily Max        | -                       | 0.37                                   | 4/0                                    |       |            | -                           | -  | -             | -       | -           | -          | -    | No Limitation                |
| Manganese was detected as reported in the NY-2C application. No water quality standard exists for Manganese, Total to Class SB waterbodies. Therefore, no limitation is being imposed.   |   |                  |                         |  |  |       |            |                             |  |               |         |             |            |      |                              |

## Appendix: Regulatory and Technical Basis of Permit Authorizations

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

### Regulatory References

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

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

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

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

### Outfall and Receiving Water Information

#### Impaired Waters

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

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

### Interstate Water Pollution Control Agencies

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

### Existing Effluent Quality

The existing effluent quality is determined from a statistical evaluation of effluent data in accordance with TOGS 1.2.1 and the USEPA Office of Water, Technical Support Document for Water Quality-based Toxics Control, March 1991, Appendix E (TSD). The existing effluent quality is equal to the 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.

#### Anti-backsliding

Anti-backsliding requirements are specified in the CWA sections 402(o) and 303(d)(4), ECL 17-0809, and regulations at 40 CFR 122.44(l) and 6 NYCRR 750-1.10(c) and (d). Generally, the relaxation of effluent limitations in permits is prohibited unless one of the specified exceptions applies, which will be cited on a case-by-case basis in this fact sheet. Consistent with current case law<sup>5</sup> and USEPA interpretation<sup>6</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.

---

<sup>5</sup> American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)

<sup>6</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)

## 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 Judgment (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.

### *Technology-based Effluent Limitations (TBELs)*

CWA sections 301(b)(1)(B) and 304(d)(1), 40 CFR 133.102, ECL section 17-0509, and 6 NYCRR 750-1.11 require technology-based controls, known as secondary treatment. These and other requirements are summarized in TOGS 1.3.3. Where the TBEL is more stringent than the WQBEL, the TBEL is applied as a limit in accordance with TOGS 1.3.3. Equivalent secondary treatment, as defined in 40 CFR 133.105, allow for effluent limitations of the more stringent of the consistently achievable concentrations or monthly/weekly averages of 45/65 mg/L, and the minimum monthly average of at least 65% removal. Consistently achievable concentrations are defined in 40 CFR 133.101(f) as the 95th percentile value for the 30-day (monthly) average effluent quality achieved by the facility in a period of two years. The achievable 7-day (weekly) average value is equal to 1.5 times the 30-day average value calculated



above. Equivalent secondary treatment applies to those facilities where the principal treatment process is either a trickling filter or a waste stabilization pond; the treatment works provides significant biological treatment of municipal wastewater; and, the effluent concentrations consistently achievable through proper operation and maintenance of the facility cannot meet traditional secondary treatment requirements. There are no federal technology-based standards for toxic pollutants from POTWs. A statistical analysis of existing effluent data, as described in TOGS 1.2.1, may be used to establish other performance-based TBELs.

#### *Technology-based Effluent Limitations (TBELs) for Discharges to Groundwater*

TBELs aim to prevent pollution by requiring a minimum level of effluent quality that is attainable using demonstrated technologies for reducing discharges of pollutants or pollution into the waters of the United States. ECL section 17-0509, and 6 NYCRR 750-1.11 require technology-based controls for POTWs discharging to surface waters, known as secondary treatment. The applicable regulations are specified in 40 CFR 133.102 and 6 NYCRR 750-1.11. These and other requirements are summarized in TOGS 1.3.3 and below:

- Secondary treatment requirements of 40 CFR Part 133 will typically not be included unless the facility discharges to a surface water prior to entering the groundwater or if, in the permit writer's judgement, limitations are necessary to prevent nuisance conditions or enhance plant operation.
- Since nitrogen is a component of all domestic wastewater, permits for facilities discharging 30,000 GPD or greater include effluent limitations for Nitrate of 20 mg/L (as N). Groundwater discharges in Nassau and Suffolk Counties are required to achieve an effluent standard for Total Nitrogen of 10 mg/L (as N).
- Disinfection will typically not be required for discharges to groundwater unless local public health concerns exist due to exposure or contact with effluent. When this occurs, disinfection requirements and effluent limitations for chlorine residual are developed in accordance with TOGS 1.3.3.

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

TBELs aim to prevent pollution by requiring a minimum level of effluent quality that is attainable using demonstrated technologies for reducing discharges of pollutants or pollution into the waters of the United States. Requirements for discharges from industrial facilities to groundwater are summarized in TOGS 1.2.1. In accordance with TOGS 1.2.1, for facilities discharging to groundwater:

- Discharges will typically be limited to the more stringent of the groundwater effluent standards in 6 NYCRR 703.6 or the applicable treatment technology listed in TOGS 1.2.1 Attachment (C).
- Discharges from industrial facilities which contain nitrogen or nitrogen compounds include effluent limitations for Nitrate of 20 mg/L (as N). Groundwater discharges in Nassau and Suffolk Counties are required to achieve an effluent standard for Total Nitrogen of 10 mg/L (as N).
- Disinfection will typically not be required for discharges to groundwater unless local public health concerns exist due to exposure or contact with effluent.

#### *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, wasteload allocations and load allocations have been developed, and permits with water quality-based effluent limits have been issued. In accordance with TOGS 1.3.1, the Division of Water implements a Toxics Reduction Strategy which is committed to the application of the TMDL process using numeric, pollutant-specific water quality standards through the Watershed Approach. The Watershed Approach accounts for the cumulative effect of multiple discharges of conservative toxic pollutants to ensure water quality standards are met in downstream segments.

#### *Water Quality-Based Effluent Limitations (WQBELs) for Discharges to Groundwater*

The procedure for developing WQBELs includes identifying the pollutants present in the discharge(s), identifying water quality criteria applicable to these pollutants, determining if WQBELs are necessary (reasonable potential), and calculating the WQBELs. For groundwater discharges, if the expected concentration of the pollutant of concern in the receiving water may exceed the ambient groundwater quality standard or guidance value, then there is reasonable potential that the discharge may cause or contribute to a violation of the water quality, and a WQBEL for the pollutant is required.

WQBELs for groundwater discharges are based on the groundwater effluent limits set forth in 6 NYCRR Part 703 (Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations) except as noted in 6 NYCRR 702.21. TOGS 1.1.1 provides a listing of groundwater effluent limitations for substances having an ambient water quality standard or guidance value. Groundwater effluent limitations are applied at the point of discharge to the groundwater distribution system.

For land treatment systems with no accessible final sampling points, such as constructed wetland treatment systems or buried sand filters, permit limitations for groundwater discharges are typically based on ambient groundwater quality standards or guidance values applied at representative down gradient monitoring well(s). Limitations at the downgradient sampling point are set at the Class GA ambient groundwater standards, rather than at the groundwater effluent limits promulgated under 6 NYCRR 703.6, as compliance is determined based upon the concentrations present in the downgradient groundwater monitoring well at the groundwater interface.

Class GA standards are established for the protection of sources of drinking water designated as Health (Water Source) or H(WS) in TOGS 1.1.1. As such, effluent limitations based on aquatic life criteria and WET testing requirements are not applicable to groundwater discharges.

#### *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 DEC has determined that the MDV is consistent with the

Permittee: Liberty Utilities (New York Water) Corp.  
Facility: Liberty New York Water Plant No.6  
SPDES Number: NY0106879  
USEPA Non-Major/Class 01 Industrial

Date: January 6, 2025 v.1.26  
Permit Writer: Helen Cheng  
Water Quality Reviewer: Edward Schneider  
Full Technical Review

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.

### Pollutant Minimization Programs

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