



Department of
Environmental
Conservation

State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

| | | | | | | |
|---------------------------|---------|-------------|-----------|--|----------------------------|--------------------|
| SIC Code: | 4952 | NAICS Code: | 221320 | | SPDES Number: | NY0028410 |
| Discharge Class (CL): | 05 | | | | DEC Number: | 9-1402-00154/00002 |
| Toxic Class (TX): | T | | | | Effective Date (EDP): | EDP |
| Major-Sub Drainage Basin: | 01 - 01 | | | | Expiration Date (ExDP): | ExDP |
| Water Index Number: | O-158 | Item No.: | 837 - 001 | | Modification Dates (EDPM): | |
| Compact Area: | IJC | | | | | |

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

| PERMITTEE NAME AND ADDRESS | | | | | |
|----------------------------|--------------------------------|--|--|------------|---------------------------------------|
| Name: | Buffalo Sewer Authority | | | Attention: | General Manager |
| Street: | 1038 City Hall | | | | |
| City: | Buffalo | | | State: | NY Zip Code: 14202-3310 |
| Email: | rnogle@buffalosewer.org | | | Phone: | (716) 851-4664 |

is authorized to discharge from the facility described below:

| FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL | | | | | | | | | |
|---|---|-----------|------------------|----------------------|--------------|-------------|--------------------|--------------|------------|
| Name: | Bird Island Wastewater Treatment Facility (WWTF) | | | | | | | | |
| Address / Location: | 90 West Ferry Street | | | | | County: | Erie | | |
| City: | Buffalo | | | | State: | NY | Zip Code: | 14213 | |
| Facility Location: | | Latitude: | 42 ° | 55 ' 16 " N | & Longitude: | 78 ° | 54 ' 20 " W | | |
| Primary Outfall No.: | 002 | Latitude: | 42 ° | 55 ' 37 " N | & Longitude: | 78 ° | 54 ' 24 " W | | |
| Outfall Description: | Treated Sanitary | | Receiving Water: | Niagara River | | Class: | A-S | Standard: | A-S |

and the additional outfalls listed in this permit, in accordance with: effluent limitations; monitoring and reporting requirements; other provisions and conditions set forth in this permit; and 6 NYCRR Part 750-1 and 750-2. The co-permittees subject to one or more conditions of this permit are listed on page 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:

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| | | |
|-----------------------|--|--|
| Permit Administrator: | Michelle R. Woznick | |
| Address: | 700 Delaware Ave. Buffalo, NY 14209 | |
| | | |
| Signature | Date | |

Contents

| | |
|--|----|
| SUMMARY OF COMBINED SEWER OVERFLOW OUTFALLS..... | 3 |
| DEFINITIONS..... | 6 |
| PERMIT LIMITS, LEVELS AND MONITORING – Outfall 002..... | 7 |
| PERMIT LIMITS, LEVELS AND MONITORING – Outfall 002 (continued) | 8 |
| PERMIT LIMITS, LEVELS AND MONITORING – Outfall 002 (continued) | 9 |
| EMERGING CONTAMINANT LEVELS AND MONITORING – Outfall 002 | 10 |
| EMERGING CONTAMINANT LEVELS AND MONITORING – Outfall 002 | 11 |
| EMERGING CONTAMINANT LEVELS AND MONITORING – Outfall 002 | 12 |
| WWTF SPECIAL CONDITIONS | 12 |
| PERMIT LIMITS, LEVELS AND MONITORING – Outfall 001..... | 13 |
| PERMIT LIMITS, LEVELS AND MONITORING – Outfall 01A | 14 |
| BEST MANAGEMENT PRACTICES FOR COMBINED SEWER OVERFLOWS..... | 15 |
| SPECIAL CONDITIONS: CSO CONTROL POLICY | 18 |
| SPECIAL CONDITIONS: CSO CONTROL POLICY (continued)..... | 19 |
| STORMWATER POLLUTION PREVENTION REQUIREMENTS | 19 |
| MERCURY MINIMIZATION PROGRAM (MMP) - Type I | 20 |
| DISCHARGE NOTIFICATION REQUIREMENTS..... | 23 |
| INDUSTRIAL PRETREATMENT PROGRAM IMPLEMENTATION REQUIREMENTS | 24 |
| SCHEDULE OF COMPLIANCE..... | 27 |
| MONITORING LOCATIONS..... | 28 |
| GENERAL REQUIREMENTS..... | 29 |
| RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS..... | 31 |
| E. Schedule of Additional Submittals: | 31 |

SUMMARY OF COMBINED SEWER OVERFLOW OUTFALLS

| Outfall Number | CSO Location | Receiving Waterbody | Waterbody Class | Latitude | Longitude | Contributing Sewer Patrol Points (SPPs) |
|-----------------------|------------------------------------|----------------------------|------------------------|-----------------|------------------|---|
| 003 | Austin Street | Black Rock Canal | C | 42° 56' 14" N | 78° 54' 26" W | 003, 004, 005, 007, 008, 009, 010, 011, 184, 185, 186 |
| 004 | Bird Avenue | Black Rock Canal | C | 42° 55' 34" N | 78° 53' 57" W | 013 |
| 005 | Potomac Avenue | Black Rock Canal | C | 42° 55' 27" N | 78° 53' 57" W | 014A |
| 006 | W. Delevan Avenue | Black Rock Canal | C | 42° 55' 20" N | 78° 53' 59" W | 179, 180, 243, 331 |
| 007 | W. Delevan Avenue | Black Rock Canal | C | 42° 55' 20" N | 78° 53' 58" W | 018 |
| 008 | Brace Street | Black Rock Canal | C | 42° 55' 15" N | 78° 54' 0" W | 019 |
| 009 | Auburn Street | Black Rock Canal | C | 42° 55' 8" N | 78° 54' 3" W | 020 |
| 010 | Breckenridge Street | Black Rock Canal | C | 42° 55' 2" N | 78° 54' 5" W | 021 |
| 011 | Albany St to W. Wall - Bird Island | Niagara River | A-Special | 42° 54' 49" N | 78° 54' 12" W | 024 |
| 012 | Albany Street | Black Rock Canal | C | 42° 54' 48" N | 78° 54' 7" W | 023, 296 |
| 013 | Virginia Street | Buffalo Harbor | C | 42° 53' 20" N | 78° 53' 37" W | 304 |
| 014 | Fourth Street | Buffalo Harbor | C | 42° 53' 1" N | 78° 53' 12" W | 206A/B |
| 015 | Genesee Street | Buffalo Harbor | C | 42° 52' 58" N | 78° 53' 7" W | 035, 036 |
| 016 | Erie Street | Buffalo Harbor | C | 42° 52' 53" N | 78° 53' 3" W | 042A |
| 017 | Hamburg Drain, Main Street | Buffalo River | C | 42° 52' 38" N | 78° 52' 47" W | 045A, 047, 048, 050, 051, 052, 053, 054, 055, 056, 058, 059, 065, 067, 128, 130, 146, 281, 282, 326, 327 |
| 022 | Baltimore Street | Buffalo River | C | 42° 52' 21" N | 78° 52' 25" W | 051A, 138, 145 |
| 023 | Ohio Street | Buffalo River | C | 42° 52' 1" N | 78° 52' 5" W | 279 |
| 025 | Hamburg Street | Buffalo River | C | 42° 51' 51" N | 78° 51' 37" W | 209 |
| 026 | Smith Street | Buffalo River | C | 42° 51' 49" N | 78° 51' 3" W | 068, 069, 070, 072, 073, 074, 075, 077, 078, 079, 080, 081, 082, 084, 085, 086, 087, 088, 089, 090, 091, 092, 094, 148, |

| | | | | | | |
|-----|---------------------|------------------|---|---------------|---------------|--|
| | | | | | | 149, 150, 151, 152, 198B, 199A, 199B, 217, 218, 248, 249, 277, 314, 315, 316, 317, 318, 319, 320 |
| 027 | Babcock Street | Buffalo River | C | 42° 51' 48" N | 78° 50' 16" W | 097 |
| 028 | Boone Street | Buffalo River | C | 42° 51' 38" N | 78° 49' 56" W | 123A, 123B, 123C, 124, 125, 125A, 208 |
| 029 | Boone Street | Buffalo River | C | 42° 51' 37" N | 78° 49' 57" W | 126 |
| 031 | Kimmel Avenue | Cazenovia Creek | C | 42° 51' 36" N | 78° 49' 28" W | 115 |
| 032 | W. of Bailey Avenue | Buffalo River | C | 42° 51' 43" N | 78° 49' 35" W | 120 |
| 033 | Bailey Avenue | Buffalo River | C | 42° 51' 45" N | 78° 49' 31" W | 099, 100, 101, 103, 104 |
| 035 | Cazenovia Park | Cazenovia Creek | B | 42° 51' 2" N | 78° 48' 31" W | 107, 107A |
| 037 | Salem Street | Cazenovia Creek | C | 42° 51' 8" N | 78° 48' 40" W | 122 |
| 038 | Kingston Place | Cazenovia Creek | C | 42° 51' 10" N | 78° 48' 40" W | 226, 227, 227A |
| 039 | Tamarack Street | Cazenovia Creek | C | 42° 51' 13" N | 78° 48' 46" W | 311 |
| 040 | Yale Place | Cazenovia Creek | C | 42° 51' 15" N | 78° 48' 46" W | 223, 224, 225 |
| 042 | S. Ryan Street | Cazenovia Creek | C | 42° 51' 19" N | 78° 48' 51" W | 109, 220, 221, 222 |
| 044 | Mumford Street | Cazenovia Creek | C | 42° 51' 27" N | 78° 49' 6" W | 121 |
| 046 | Unger Avenue | Cazenovia Creek | C | 42° 51' 32" N | 78° 49' 13" W | 308, 308A, 308B, 309, 310 |
| 047 | Southside Parkway | Cazenovia Creek | C | 42° 51' 35" N | 78° 49' 22" W | 113, 114 |
| 048 | E. of Bailey Ave. | Cazenovia Creek | C | 42° 51' 38" N | 78° 49' 29" W | 118 |
| 049 | W. of Bailey Ave. | Buffalo River | C | 42° 51' 42" N | 78° 49' 36" W | 119 |
| 050 | Seneca Street | Buffalo River | C | 42° 51' 49" N | 78° 49' 16" W | 105 |
| 051 | Hillery Park | Buffalo River | C | 42° 51' 47" N | 78° 48' 39" W | 307 |
| 052 | S. Ogden Street | Buffalo River | C | 42° 51' 54" N | 78° 48' 8" W | 106 |
| 053 | Scajaquada Drain | Scajaquada Creek | B | 42° 55' 26" N | 78° 51' 26" W | 156, 156A, 156B, 157, 163, 164, 165, 165A, 165B, 166, 175, 176, 177, 178, 200A, 200B, 201, 202, 203, 204, 229, 229A, 247, 333, |

| | | | | | | |
|-----|-------------------------------------|------------------|-----------|---------------|---------------|---|
| | | | | | | 334A, 334B, 335A, 335B, 336A, 336B, 337, 338, 339, 340, 341A, 342A, 342B, 345 |
| 054 | Crowley Avenue | Niagara River | A-Special | 42° 57' 7" N | 78° 54' 36" W | 187, 188, 189, 190, 191, 193, 280 |
| 055 | Niagara Street | Niagara River | A-Special | 42° 56' 42" N | 78° 54' 32" W | 001 |
| 056 | Nottingham Terrace | Scajaquada Creek | B | 42° 56' 5" N | 78° 52' 34" W | 244, 245 |
| 057 | Tonawanda | Scajaquada Creek | B | 42° 55' 43" N | 78° 53' 52" W | 195 |
| 058 | West Avenue | Scajaquada Creek | B | 42° 55' 49" N | 78° 53' 45" W | 213, 214, 215 |
| 059 | DeWitt Street | Scajaquada Creek | B | 42° 55' 51" N | 78° 53' 39" W | 181, 182, 183 |
| 060 | Elmwood Avenue | Scajaquada Creek | B | 42° 56' 4" N | 78° 52' 42" W | 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241 |
| 061 | Scajaquada Tunnel, Lafayette Avenue | Black Rock Canal | C | 42° 55' 15" N | 78° 54' 1" W | 330 |
| 062 | West Ferry Street | Black Rock Canal | C | 42° 54' 55" N | 78° 54' 7" W | 022 |
| 063 | Front Park | Black Rock Canal | C | 42° 54' 8" N | 78° 54' 6" W | 283 |
| 064 | Ohio Drain, Ohio Street | Buffalo River | C | 42° 51' 59" N | 78° 52' 4" W | 129, 131, 132, 133, 135A, 136A, 137 |
| 066 | Sloan Drain, S. Ogden Street | Buffalo River | C | 42° 51' 54" N | 78° 48' 7" W | 211, 212, 291, 292, 293, 294, 295, 322, 329 |

DEFINITIONS

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

PERMIT LIMITS, LEVELS AND MONITORING – Outfall 002

| OUTFALL | LIMITATIONS APPLY | RECEIVING WATER | EFFECTIVE | EXPIRING |
|---------|-------------------|-----------------|-----------|----------|
| 002 | All Year | Niagara River | EDP | ExDP |

| PARAMETER | EFFLUENT LIMITATION | | | | | MONITORING REQUIREMENTS | | | | FN |
|------------------------------|-----------------------|--------------|-------------|--------------|-------|-------------------------|--------------|----------|------|-----|
| | Type | Limit | Units | Limit | Units | Sample Frequency | Sample Type | Location | | |
| | | | | | | | | Inf. | Eff. | |
| Flow | 12 MRA | 180 | MGD | | | Continuous | Recorder | X | | |
| Flow | Instantaneous Maximum | Monitor | MGD | | | Continuous | Recorder | | X | |
| pH | Daily Minimum | 6.0 | SU | | | 6/Day | Grab | | X | |
| | Daily Maximum | 9.0 | SU | | | | | | | |
| Temperature | Daily Maximum | Monitor | °F | | | 6/Day | Grab | | X | |
| BOD ₅ | Monthly Average | 30 | mg/L | 45,000 | lbs/d | 1/Day | 24-hr. Comp. | X | X | 1 |
| BOD ₅ | 7-Day Average | 45 | mg/L | 68,000 | lbs/d | 1/Day | 24-hr. Comp. | | X | |
| Total Suspended Solids (TSS) | Monthly Average | 30 | mg/L | 45,000 | lbs/d | 1/Day | 24-hr. Comp. | X | X | 1 |
| Total Suspended Solids (TSS) | 7-Day Average | 45 | mg/L | 68,000 | lbs/d | 1/Day | 24-hr. Comp. | | X | |
| Settleable Solids | Daily Maximum | 0.3 | mL/L | | | 6/Day | Grab | | X | |
| Ammonia (as N) | Monthly Average | Monitor | mg/L | | | 1/Day | 24-hr. Comp. | | X | |
| Total Phosphorus (as P) | Monthly Average | 1.0 | mg/L | | | 1/Day | 24-hr. Comp. | | X | |
| Total Phenols | Monthly Average | 20 | µg/L | 30 | lbs/d | 1/Month | 24-hr. Comp. | | X | 4,5 |
| Total Mercury | 12 MRA | 5.7 | ng/L | | | 1/Quarter | Calculated | | X | 2 |
| Total Mercury | Daily Maximum | 50 | ng/L | | | 1/Quarter | Grab | | X | 2 |
| Biennial Pollutant Scan | Daily Maximum | | | | | 1/Two Years | - | | X | 3 |
| ACTION LEVEL PARAMETERS | Type | Action Level | Units | Action Level | Units | Sample Frequency | Sample Type | Inf. | Eff. | FN |
| Copper, Total | Daily Maximum | Monitor | µg/L | 32 | lbs/d | 1/Month | 24-hr. Comp. | | X | 6 |
| Zinc, Total | Daily Maximum | Monitor | µg/L | 170 | lbs/d | 1/Month | 24-hr. Comp. | | X | 6 |
| EFFLUENT DISINFECTION | | | | | | | | | | |
| Required All Year | | Limit | Units | Limit | Units | Sample Frequency | Sample Type | Inf. | Eff. | FN |
| Coliform, Fecal | 30-Day Geometric Mean | 200 | No./ 100 mL | | | 1/Day | Grab | | X | |
| Coliform, Fecal | 7-Day Geometric Mean | 400 | No./ 100 mL | | | 1/Day | Grab | | X | |
| Chlorine, Total Residual | Daily Maximum | 0.1 | mg/L | | | 6/Day | Grab | | X | 4 |

Outfall 002 Footnotes on Next Page

PERMIT LIMITS, LEVELS AND MONITORING – Outfall 002 (continued)

| WHOLE EFFLUENT TOXICITY (WET) TESTING | | Limit | Units | Action Level | Units | Sample Frequency | Sample Type | Inf. | Eff. | FN |
|---------------------------------------|--------------|-------|-------|--------------|-------|------------------|--------------|------|------|----|
| WET - Acute Invertebrate | See footnote | | | 3.0 | TUa | Quarterly | See footnote | | X | 7 |
| WET - Acute Vertebrate | See footnote | | | 3.0 | TUa | Quarterly | See footnote | | X | 7 |
| WET - Chronic Invertebrate | See footnote | | | 20 | TUc | Quarterly | See footnote | | X | 7 |
| WET - Chronic Vertebrate | See footnote | | | 20 | TUc | Quarterly | See footnote | | X | 7 |

OUTFALL 002 FOOTNOTES:

1. Effluent shall not exceed 15% and 15% of influent concentration values for BOD₅ & TSS respectively.
2. Quarterly samples shall be collected in calendar quarters (Q1 – January 1st to March 31st; Q2 – April 1st to June 30th; Q3 – July 1st to September 30th; Q4 – October 1st to December 31st).
3. Biennial Pollutant Scan: The permittee shall perform effluent sampling every two (2) years for all applicable pollutants identified in the NY-2A Application, Tables A - D. Sampling data shall be collected according to the guidance in the NY-2A application and maintained by the permittee. Monitoring results shall not be submitted on the DMR. Data shall be submitted with the next submission of the NY-2A form.
4. This is a final effluent limitation. See Schedule of Compliance for any applicable interim effluent limitations.
5. At least 4 individual manual grab samples must be collected over the course of 24 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.
6. Action Levels: If the action level is exceeded, the additional monitoring requirement is triggered, and the permittee shall undertake a short-term, high-intensity, monitoring program. Samples identical to those required for routine monitoring purposes shall be taken on each of at least three consecutive days and analyzed. Results shall be expressed in both mass and concentration. If levels higher than the action levels are confirmed, the permittee shall evaluate the treatment system operation and identify and employ actions to reduce concentrations present in the discharge. The permit may also be reopened by the DEC for consideration of revised action levels or effluent limits. Action level monitoring results and the effectiveness of the actions taken shall be summarized and submitted with the DMR.

PERMIT LIMITS, LEVELS AND MONITORING – Outfall 002 (continued)

OUTFALL 002 FOOTNOTES (continued):

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

Testing Requirements – Chronic WET testing is required, but report both the acute and chronic results. Testing shall be performed in accordance with 40 CFR Part 136 and TOGS 1.3.2 unless prior written approval has been obtained from the DEC. The test species shall be *Ceriodaphnia dubia* (water flea - invertebrate) and *Pimephales promelas* (fathead minnow - vertebrate). Receiving water collected upstream from the discharge should be used for dilution. All tests conducted should be static-renewal (two 24-hr composite samples with one renewal for Acute tests and three 24-hr composite samples with two renewals for Chronic tests). The appropriate dilution series should be used to generate a definitive test endpoint, otherwise an immediate rerun of the test may be required. WET testing shall be coordinated with the monitoring of chemical and physical parameters limited by this permit so that the resulting analyses are also representative of the sample used for WET testing. The ratio of critical receiving water flow to discharge flow (i.e. dilution ratio) is 10:1 for acute, and 20:1 for chronic.

Monitoring Period - WET testing shall be performed quarterly (calendar quarters) during calendar years ending in 2 and 7.

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

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

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

EMERGING CONTAMINANT LEVELS AND MONITORING – Outfall 002

| OUTFALL | LIMITATIONS APPLY | RECEIVING WATER | EFFECTIVE | EXPIRING |
|---------|-------------------|-----------------|-----------|----------|
| 002 | All Year | Niagara River | EDP | ExDP |

| EMERGING CONTAMINANTS | | Limit | Units | Action Level | Units | Sample Frequency ¹ | Sample Type | Inf. | Eff. | FN |
|---|---------------|---------|-------|--------------|-------|-------------------------------|-------------|------|------|----|
| Perfluorobutanoic Acid (PFBA) CAS No. 375-22-4 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| Perfluoropentanoic Acid (PFPeA) CAS No. 2706-90-3 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| Perfluorohexanoic Acid (PFHxA) CAS No. 307-24-4 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| Perfluoroheptanoic Acid (PFHpA) CAS No. 375-85-9 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| Perfluorooctanoic Acid (PFOA) CAS No. 335-67-1 | Daily Maximum | | | 10 | ng/L | 1/quarter | Grab | | X | 2 |
| Perfluorononanoic Acid (PFNA) CAS No. 375-95-1 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| Perfluoro-decanoic Acid (PFDA) CAS No. 335-76-2 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| Perfluoroundecanoic Acid (PFUnA) CAS No. 2058-94-8 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| Perfluorododecanoic Acid (PFDoA) CAS No. 307-55-1 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| Perfluorotridecanoic Acid (PFTiA) CAS No. 72629-94-8 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| Perfluorotetradecanoic Acid (PFTeA) CAS No. 376-06-7 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| Perfluorobutanesulfonic Acid (PFBS) CAS No. 375-73-5 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| Perfluoropentanesulfonic Acid (PFPeS) CAS No. 2706-91-4 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| Perfluorohexanesulfonic Acid (PFHxS) CAS No. 355-46-4 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| Perfluoroheptanesulfonic Acid (PFHpS) CAS No. 375-92-8 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| Perfluorooctanesulfonic Acid (PFOS) CAS No. 1763-23-1 | Daily Maximum | | | 10 | ng/L | 1/quarter | Grab | | X | 2 |
| Perfluorononanesulfonic Acid (PFNS) CAS No. 68259-12-1 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| Perfluorodecanesulfonic Acid (PFDS) CAS No. 335-77-3 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| Perfluorododecanesulfonic Acid (PFDoS) CAS No. 79780-39-5 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| Perfluorooctanesulfonamide (FOSA) CAS No. 754-91-6 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA) CAS No. 2355-31-9 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |

Emerging Contaminant Footnotes on Page 12

EMERGING CONTAMINANT LEVELS AND MONITORING – Outfall 002

| EMERGING CONTAMINANTS | | Limit | Units | Action Level | Units | Sample Frequency | Sample Type | Inf. | Eff. | FN |
|---|---------------|---------|-------|--------------|-------|------------------|-------------|------|------|----|
| N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA) CAS No. 2991-50-6 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| 1H,1H,2H,2H-Fluorotelomer Sulfonic Acid (4:2 FTS) CAS No. 757124-72-4 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| 1H,1H,2H,2H- Fluorotelomer Sulfonic Acid (6:2 FTS) CAS No. 27619-97-2 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| 1H,1H,2H,2H- Fluorotelomer Sulfonic Acid (8:2 FTS) CAS No. 39108-34-4 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| N-ethyl Perfluorooctanesulfonamide (NEtFOSA) CAS No. 4151-50-2 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| N-Methyl Perfluorooctane Sulfonamide (NMeFOSA) CAS No. 31506-32-8 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE) CAS No. 24448-09-7 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE) CAS No. 1691-99-2 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| 9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS) CAS No. 756426-58-1 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA or GenX) CAS No. 13252-13-6 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS) CAS No. 763051-92-9 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| 4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA) CAS No. 919005-14-4 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| 3-Perfluoropropyl Propanoic Acid (3:3 FTCA) CAS No. 356-02-5 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| 2H,2H,3H,3H-Perfluorooctanoic Acid (5:3 FTCA) CAS No. 914637-49-3 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| 3-Perfluoroheptyl Propanoic Acid (7:3 FTCA) CAS No. 812-70-4 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| Nonafluoro-3,6-dioxaheptanoic Acid (NFDHA) CAS No. 151772-58-6 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |

Emerging Contaminant Footnotes on Page 12

EMERGING CONTAMINANT LEVELS AND MONITORING – Outfall 002

| EMERGING CONTAMINANTS | | Limit | Units | Action Level | Units | Sample Frequency | Sample Type | Inf. | Eff. | FN |
|---|---------------|---------|-------|--------------|-------|------------------|-------------|------|------|----|
| Perfluoro-4-Methoxybutanoic Acid (PFMBA) CAS No. 863090-89-5 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| Perfluoro-3-Methoxypropanoic Acid (PFMPA) CAS No. 377-73-1 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |
| Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA) CAS No. 113507-82-7 | Daily Maximum | Monitor | ng/L | | | 1/quarter | Grab | | X | |

EMERGING CONTAMINANT FOOTNOTES:

- Quarterly samples shall be collected in calendar quarters (Q1 – January 1st to March 31st; Q2 – April 1st to June 30th; Q3 – July 1st to September 30th; Q4 – October 1st to December 31st).
- Emerging Contaminants Action Level: Upon each exceedance of the PFOA and/or PFOS Action Levels, perform one (1) confirmatory sampling within seven (7) days of discovery for the parameter(s) exceeded. If confirmed exceedance, notify DEC at emergingcontaminantsdow@dec.ny.gov and initiate minimization program and continuous reporting as outlined in the [Schedule of Additional Submittals](#). If minimization program initiated, sampling can continue on a quarterly basis with no confirmatory sampling required. All PFAS compound sampling shall use EPA Method 1633.

WWTF SPECIAL CONDITIONS

- At all times, the permittee shall operate the WWTF in a manner that maximizes treatment of influent flow. The operational modes for the WWTF (Normal, Primary Bypass, Partial Treatment) are to be identified in the WWOP and approved by the Department. The permittee shall provide written request to the Department, in accordance with 6 NYCRR 750-2.7(a), for any reduction in available wet weather capacities, should capacity of the WWTF be limited due to out-of-service equipment for routine maintenance purposes.
- Wet-Weather Event Ramp-Up**: Primary Bypass mode shall not be initiated until the flows through primary treatment exceed 160 MGD. Partial Treatment mode shall only be initiated from Primary Bypass mode and shall only be initiated when secondary treatment flows exceed 400 MGD.
- Wet-Weather Event Wind-Down**: Once Partial Treatment mode is initiated, the permittee may continue to operate in partial treatment mode until such time flows recede below 380 MGD for 1 continuous hour, upon which the permittee shall revert to primary bypass mode, or normal mode if possible. Operation of the WWTF in primary bypass mode shall only continue until such time the WWTF can operate in normal mode.
- The permittee shall develop and submit for Department approval, a routine schedule for settled wastewater wet well and aeration system drain down and inspection to monitor accumulation of grit. Upon Department approval, this routine schedule shall be incorporated into the WWTF's Operation and Maintenance Plan. Upon inspection, should an accumulation of grit occur that may reasonably impact facility operation and/or significantly reduce hydraulic capacity, the permittee shall submit to the Department an approvable schedule for cleaning and removal of the grit. Note that written notification of any reduction in available capacity shall be submitted to the Department in accordance with 6 NYCRR 750-2.7(a).

PERMIT LIMITS, LEVELS AND MONITORING – Outfall 001

| OUTFALL | LIMITATIONS APPLY: | RECEIVING WATER | EFFECTIVE | EXPIRING |
|---------|--|-----------------|-----------|----------|
| 001 | All Year (During Outfall 001 Discharges) | Niagara River | EDP | ExDP |

| PARAMETER | EFFLUENT LIMITATION | | | | | MONITORING REQUIREMENTS | | | | FN |
|---|-----------------------|---------|------------|-------|-------|-------------------------|-------------|----------|------|-----|
| | Type | Limit | Units | Limit | Units | Sample Frequency | Sample Type | Location | | |
| | | | | | | | | Inf. | Eff. | |
| Flow | Monthly Total | Monitor | MG | | | Continuous | Totalizer | | X | 1,2 |
| BOD ₅ | Daily Maximum | Monitor | mg/L | | | See Footnote 3 | Composite | | X | |
| Solids, Total Suspended (TSS) | Daily Maximum | Monitor | mg/L | | | See Footnote 3 | Composite | | X | |
| Solids, Settleable | Daily Maximum | Monitor | mL/L | | | See Footnote 3 | Grab | | X | |
| Oil & Grease | Daily Maximum | Monitor | mg/L | | | See Footnote 3 | Grab | | X | |
| Ammonia (as N) | Daily Maximum | Monitor | mg/L | | | See Footnote 3 | Composite | | X | |
| Phosphorus, Total | Daily Maximum | Monitor | mg/L | | | See Footnote 3 | Composite | | X | |
| Effluent Disinfection Required Year-Round | | | | | | | | | | |
| Coliform, Fecal | 30-Day Geometric Mean | Monitor | No./100 mL | | | See Footnote 3 | Grab | | X | |
| Coliform, Fecal | 7 Day Geometric Mean | 400 | No./100 mL | | | See Footnote 3 | Grab | | X | 4,5 |
| Chlorine, Total Residual | Daily Maximum | 2.0 | mg/L | | | See Footnote 3 | Grab | | X | |

OUTFALL 001 FOOTNOTES:

- Flows shall be managed in accordance with the Best Management Practices for Combined Sewer Overflows section of this permit and the approved Wet Weather Operating Plan. No discharge is permitted except as caused by excess flows above the wet weather capacity of the secondary treatment process.
- Flow shall be continuously recorded and totalized. Flow reported on the Discharge Monitoring Report shall be the total flow discharge for the calendar month reporting period.
- Representative composite samples shall be a composite of grab samples, one taken every four hours. Required grab samples shall be collected a minimum of once every four hours during each event. Sampling shall begin within 30 minutes of the start of the discharge from Outfall 001.
- This is a final effluent limitation. See Schedule of Compliance for any applicable interim effluent limitations.
- The seven-day average shall be calculated as the average of the results for each of the discharge days over the seven-day period. For example, if Outfall 001 discharges for three days [or any part of a day] during the period, the average of the three days would constitute the seven-day average for the purposes of compliance.

PERMIT LIMITS, LEVELS AND MONITORING – Outfall 01A

| OUTFALL | LIMITATIONS APPLY: | RECEIVING WATER | EFFECTIVE | EXPIRING |
|---------|--|-----------------|-----------|----------|
| 01A | All Year (during Outfall 01A discharges) | Niagara River | EDP | ExDP |

| PARAMETER | EFFLUENT LIMITATION | | | | | MONITORING REQUIREMENTS | | | | FN |
|-------------------------------|---------------------|---------|-------|-------|-------|-------------------------|-------------|----------|------|-----|
| | Type | Limit | Units | Limit | Units | Sample Frequency | Sample Type | Location | | |
| | | | | | | | | Inf. | Eff. | |
| Flow | Monthly Total | Monitor | MG | | | See Footnote 3 | Estimated | | X | 1,2 |
| BOD ₅ | Daily Maximum | Monitor | mg/L | | | See Footnote 3 | Grab | | X | 2 |
| Solids, Total Suspended (TSS) | Daily Maximum | Monitor | mg/L | | | See Footnote 3 | Grab | | X | 2 |
| Solids, Settleable | Daily Maximum | Monitor | mL/L | | | See Footnote 3 | Grab | | X | 2 |
| Oil & Grease | Daily Maximum | Monitor | mg/L | | | See Footnote 3 | Grab | | X | 2 |

OUTFALL 01A FOOTNOTES:

1. This outfall shall only be used in accordance with the approved WWOP and/or for emergency use only. No discharge is permitted except as caused by excess flows above the wet weather capacity of the WWTF.
2. Total discharge volume shall be estimated for each event. Flow reported on the Discharge Monitoring Report shall be the total flow discharged for the calendar month.
3. All samples collected for discharges from Outfall 01A shall be collected as individual grab samples, one take per discharge event.

BEST MANAGEMENT PRACTICES FOR COMBINED SEWER OVERFLOWS

The permittee shall implement the following Best Management Practices (BMPs). These BMPs are designed to implement operation & maintenance procedures, utilize the existing treatment facility and collection system to the maximum extent practicable, and implement sewer design, replacement and drainage planning, to maximize pollutant capture and minimize water quality impacts from combined sewer overflows. The BMPs are equivalent to the "Nine Minimum Control Measures" required under the USEPA National Combined Sewer Overflow policy. The EPA's policy is available at <https://www.epa.gov/npdes/combined-sewer-overflows-csos>

1. CSO Maintenance/Inspection - The permittee shall continue to maintain a written maintenance and inspection program for all CSOs. This program shall include all regulators tributary to these CSOs and shall be conducted during periods of both dry and wet weather. This is to ensure that no discharges occur during dry weather and that the maximum amount of wet weather flow is conveyed to the Bird Island POTW for treatment. This program shall consist of inspections with required repair, cleaning and maintenance done as needed. This program shall consist of monthly inspections.

Inspection reports shall be completed indicating visual inspection, any observed flow, incidence of rain or snowmelt, condition of equipment and work required. These reports shall be in a format approved by the Region 9 Office and submitted to the Region with the monthly operating report (Form 92-15-7).

2. Maximum Use of Collection System for Storage - The permittee shall optimize the collection system by operating and maintaining it to minimize the discharge of pollutants from CSOs. It is intended that the maximum amount of in-system storage capacity be used (without causing service backups) to minimize CSOs and convey the maximum amount of combined sewage to the treatment facility in accordance with Item 4 below. This shall be accomplished by an evaluation of the hydraulic capacity of the system but should also include a continuous program of flushing or cleaning to prevent deposition of solids and the adjustment of regulators and weirs to maximize storage.
3. Industrial Pretreatment - The approved Industrial Pretreatment Program shall consider CSOs in the calculation of local limits for indirect discharges. Discharge of persistent toxics upstream of CSOs will be in accordance with guidance under **(NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.3.8 New Discharges to POTWs)**. (http://www.dec.ny.gov/docs/water_pdf/togs138.pdf). For industrial operations characterized by use of batch discharge, consideration shall be given to the feasibility of a schedule of discharge during conditions of no CSO. For industrial discharges characterized by continuous discharge, consideration must be given to the collection system capacity to maximize delivery of waste to the treatment facility. Non-contact cooling water should be excluded from the combined system to the maximum extent practicable. Direct discharges of cooling water must apply for a SPDES permit.

To the maximum extent practicable, consideration shall be given to maximize the capture of nondomestic waste containing toxic pollutants and this wastewater should be given priority over residential/commercial service areas for capture and treatment by the POTW.

4. Maximize Flow to POTW - Factors cited in Item 2. above shall also be considered in maximizing flow to the POTW. Maximum delivery to the POTW is particularly critical in treatment of "first-flush" flows. The treatment facility shall be capable of receiving and treating the peak design hydraulic loading rates for all process units during wet weather, unless otherwise approved by the Department during periods of limited capacity throughout WWTF construction. The collection system and headworks must be capable of delivering these flows during wet weather.

Upon Construction Completion of No Feasible Alternatives Upgrades: Maximize Flow to POTW - Factors cited in Item 2. above shall also be considered in maximizing flow to the POTW. Maximum delivery to the POTW is particularly critical in treatment of "first-flush" flows. The treatment facility shall be capable of receiving and treating: the peak design hydraulic loading rates for all process units; i.e., a minimum of 560 MGD through the facility headworks; a minimum of 160 MGD through the primary treatment works and high-rate (Outfall 001) disinfection works; and a minimum of 400 MGD through the secondary treatment and Outfall 002 disinfection works during wet weather. The collection system and headworks must be capable of delivering these flows during wet weather. If the permittee cannot deliver maximum design flow for treatment, the permittee shall submit a plan and schedule for accomplishing this requirement within 24 months after construction completion.

BEST MANAGEMENT PRACTICES FOR COMBINED SEWER OVERFLOWS (continued)

5. Prohibition of Dry Weather Overflow - Dry weather overflows from the combined sewer system are prohibited. The occurrence of any dry weather overflow shall be promptly abated and reported to the NYSDEC Region 9 Office in accordance with 6 NYCRR Part 750-2.7.
6. Wet Weather Operating Plan (WWOP) - The permittee shall maximize treatment during wet weather events. This shall be accomplished by having a WWOP containing procedures so as to operate unit processes to treat maximum flows while not appreciably diminishing effluent quality or destabilizing treatment upon return to dry weather operation. The WWOP shall be developed in accordance with the DEC guidance, Wet Weather Operating Practices for POTWs With Combined Sewers, (http://www.dec.ny.gov/docs/water_pdf/wwtechtran.pdf), and submitted to the Regional Water Engineer and the Bureau of Water Permits for review and approval in accordance with the Schedule of Submittals.

A revised wet weather operating plan must be submitted whenever the POTW or sewer collection system is significantly replaced or modified.

7. Control of Floatable and Settleable Solids - The discharge of floating solids, oil and grease, or solids of sewage origin which cause deposition in the receiving waters, is a violation of the NYS Narrative Water Quality Standards contained in Part 703. As such, the permittee shall implement best management practices in order to eliminate or minimize the discharge of these substances. All of the measures cited in Items 1, 2, 4 & 5 above shall constitute approvable "BMPs" for mitigation of this problem. If aesthetic problems persist, the permittee should consider additional BMPs including but not limited to: street sweeping, litter control laws, installation of floatables traps in catch basins (such as hoods), booming and skimming of CSOs, and disposable netting on CSO outfalls. In cases of severe or excessive floatables generation, booming and skimming should be considered an interim measure prior to implementation of final control measures. Public education on harmful disposal practices of personal hygienic devices may also be necessary including but not limited to: public broadcast television, printed information inserts in sewer bills, or public health curricula in local schools.
8. Combined Sewer System Replacement - Replacement of combined sewers shall not be designed or constructed unless approved by DEC. When replacement of a combined sewer is necessary it shall be replaced by separate sanitary and storm sewers to the greatest extent possible. These separate sanitary and storm sewers shall be designed and constructed simultaneously but without interconnections to maximum extent practicable. When combined sewers are replaced, the design should contain cross sections which provide sewage velocities which prevent deposition of organic solids during low flow conditions.
9. Combined Sewer/Extension - Combined sewer/extension, when allowed should be accomplished using separate sewers. These sanitary and storm sewer extensions shall be designed and constructed simultaneously but without interconnections. No new source of stormwater shall be connected to any separate sanitary sewer in the collection system.

If separate sewers are to be extended from combined sewers, the permittee shall demonstrate the ability of the sewerage system to convey, and the treatment facility to adequately treat, the increased dry-weather flows. Should the Regional Water Engineer determine additional justification for sewer extension is necessary, the permittee shall assess the effects of the increased flow of sanitary sewage or industrial waste on the character and frequency of CSOs and the effects on the best use of the receiving water. This assessment should use techniques such as collection system and water quality modeling contained in the 1999 Water Environment Federation Manual of Practice FD-17 entitled, Prevention and Control of Sewer System Overflows, 2nd edition.

10. Sewage Backups - If, there are documented, recurrent instances of sewage backing up into house(s) or discharges of raw sewage onto the ground surface from surcharging manholes, the permittee shall, upon letter notification from DEC, prohibit further connections that would exacerbate the surcharging/back-up problems.
11. Septage and Hauled Waste - The discharge or release of septage or hauled waste upstream of a CSO is prohibited.
12. Control of Runoff - It is recommended that the impacts of runoff from development and redevelopment in areas served by combined sewers be reduced by requiring compliance with the New York Standards for Erosion and Sediment Control and the quantity control requirements included in the New York State Stormwater Management Design Manual. (<http://www.dec.ny.gov/chemical/8694.html>.)

BEST MANAGEMENT PRACTICES FOR COMBINED SEWER OVERFLOWS (continued)

13. Public Notification – The permittee shall maintain identification signs at all CSO outfalls owned and operated by the permittee. The permittee shall place the signs at or near the CSO outfalls and ensure that the signs are easily readable by the public. 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 style="text-align: center;">N.Y.S. PERMITTED DISCHARGE POINT (wet weather discharge) SPDES PERMIT No.: NY_____</p> <p style="text-align: center;">OUTFALL No. :_____</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> |
|---|

14. Characterization and Monitoring - The permittee shall characterize the combined sewer system, determine the frequency of overflows, and identify CSO impacts in accordance with Combined Sewer Overflows, Guidance for Nine Minimum Controls, EPA, 1995, Chapter 10. These are minimum requirements, more extensive characterization and monitoring efforts which may be required as part of the Long-Term Control Plan.
15. Annual Report - The permittee shall electronically submit the Combined Sewer Overflows (CSO) Annual Report using nForm (<https://www.dec.ny.gov/chemical/48595.html>), which summarizes the implementation of the above BMPs and the CSO Long-Term Control Plan. The CSO Annual Report shall be submitted by January 31st of each year. The complete documentation shall be stored at a central location and be made available to DEC upon request.

SPECIAL CONDITIONS: CSO CONTROL POLICY

A. Water Quality Requirements for Combined Sewer Overflows

Long-Term Control Plan

The permittee submitted a LTCP on January 13, 2014 in accordance with the Guidance for Long-Term Control Plan, EPA, September 1995. The plan was approved on March 18, 2014. On April 11, 2014, the USEPA and the permittee entered into an Administrative Order on Consent (CWA-02-2014-3033) that required the implementation of the LTCP.

In accordance with the approved 2014 LTCP, the permittee was required to implement several projects including in-line storage, off-line storage, green infrastructure, and implementation of real-time control systems. Due to several factors, implementation of the 2014 LTCP was not completed. On October 22, 2025, BSA and NYSDEC entered into a Consent Judgement (Case No. R9-20060922-35), requiring, amongst other things, an updated LTCP, implementation schedule, and updated PCCM Plan.

Upon implementation, the permittee shall effectively operate and maintain the CSO controls identified in the LTCP.

Water Quality Criterion – Presumption Approach

The permittee shall not discharge any pollutant at a level that causes an in-stream excursion of the applicable water quality requirements. The EPA 1994 CSO Control Policy indicates that a CSO control plan that meets the criteria below would provide an adequate level on control to meet the water quality requirements of the CWA. Following implementation of the approved LTCP, the following criteria shall be an enforceable performance metric under this permit:

| Receiving Waterbody | Target Number of Activations in Typical Year |
|--------------------------|--|
| Black Rock Canal | 4 |
| Buffalo River | 6 |
| Cazenovia Creek | 4-6* |
| Cornelius Creek | 9 |
| Erie Basin Marina | 2 |
| Niagara River | 9 |
| Scajaquada Creek | 4 |

*Dependent on location Cazenovia Creek

Any additional discharges of combined sewage flow during wet weather shall receive the minimum treatment specified below:

- Primary clarification or equivalent, and
- Solids and floatables disposal, and
- Disinfection, if required to meet WQS, protect designated uses, and protect human health, including removal of harmful disinfection chemical residuals

B. Monitoring Requirements – Post Construction Compliance Monitoring Program

1. The PCCM Program sampling shall be implemented, in accordance with the PCCMP, as required by NYSDEC Consent Judgement Case No. R9-20060922-35. An initial period of two years, beginning in the year following LTCP completion. Following the initial 2-year PCCM period, subsequent PCCM shall be conducted during years ending in 0 and 5. Ambient sampling must be conducted, at a minimum, for the following parameters:

| PARAMETER | Units | Sample Type |
|--------------------|---------|--------------------|
| BOD ₅ | mg/L | Grab |
| Coliform, Fecal | #/100ml | Grab |
| Dissolved Oxygen | mg/L | Grab |
| Floatable Material | - | Visual Observation |
| Ammonia (as N) | mg/L | Grab |
| Phosphorus | mg/L | Grab |
| Solids, Settleable | mL/L | Grab |
| Solids, Suspended | mg/L | Grab |

SPECIAL CONDITIONS: CSO CONTROL POLICY (continued)

2. The permittee shall submit an approvable PCCM Program Report that shall include:
 - a. Analytical results of the PCCM sampling,
 - b. The number of CSO events and volume of CSO discharged during the PCCM period,
 - c. An assessment of whether CSO receiving water quality complies with applicable water quality standards,
 - d. Recommendations for potential improvements in CSO controls for when water quality standards are not attained, and
 - e. A discussion of whether the CSO controls are meeting the frequency goals of the Presumptive Approach, selected by the permittee in the LTCP, to verify the effectiveness of the CSO controls.

C. Special Conditions

1. Sensitive Area¹ Reassessment

The permittee shall reassess overflows to sensitive areas stated in the LTCP, where elimination or relocation of the overflows is not physically possible or economically achievable. The permittee shall also assess whether new or additional sensitive areas may be affected by overflows that were not initially identified in the LTCP. The permittee shall consider new or improved techniques to eliminate or relocate overflows or changed circumstances that influence economic achievability. The permittee shall prepare and submit to the Regional Water Engineer a report, separately from the PCCM Program Report, that presents the results of this reassessment, feasible improvements to eliminate or minimize overflows to sensitive areas, and the permittee's recommendation regarding the elimination or relocation of these outfalls. The permittee shall submit such reports by December 31st in the same year the PCCM Program Report is submitted.

2. Reopener

This permit may be modified or revoked and reissued, as provided pursuant to 6 NYCRR 750-1.18, 6 NYCRR 750-1.20, 40 CFR 122.62 and 124.5, for the following reasons:

- I. To include new or revised conditions developed to comply with any state or federal law or regulation that addresses CSOs that are adopted or promulgated subsequent to the effective date of this permit.
- II. To include new or revised conditions if new information, not available at the time of permit issuance, indicates that CSO controls imposed under the permit have failed to ensure the attainment of applicable water quality requirements.

STORMWATER POLLUTION PREVENTION REQUIREMENTS

Stormwater discharges at this facility are covered under the current Multi-Sector General Permit (MSGP) Sector [T] (GP-0-23-001), SPDES No. NYR00H113.

¹ Sensitive areas include designated Outstanding National Resource Waters, National Marine Sanctuaries, waters with threatened or endangered species and their habitat, waters with primary contact recreation, public drinking water intakes or their designated protection areas, and shellfish beds, waters listed on the NYSDEC 303(d) list, or any other area determined by the Department.

MERCURY MINIMIZATION PROGRAM (MMP) - Type I

1. **General** - The permittee must develop, implement, and maintain a mercury minimization program (MMP), containing the elements set forth below, to reduce mercury effluent levels with the goal of achieving the WQBEL of 0.7 ng/L.
2. **MMP Elements** - The MMP must be a written document and must include any necessary drawings or maps of the facility and/or collection system. Other related documents already prepared for the facility may be used as part of the MMP and may be incorporated by reference. At a minimum, the MMP must include the following elements as described in detail below:
 - a. **Monitoring** - Monitoring at Outfall 002, influent and other locations tributary to compliance points shall be performed using either USEPA Method 1631 or another sufficiently sensitive method, as approved under 40 CFR Part 136². Monitoring of raw materials, equipment, treatment residuals, and other non-wastewater/non-stormwater substances may be performed using other methods as appropriate. Monitoring must be coordinated so that the results can be effectively compared between locations.

Minimum required monitoring is as follows:

- i. **Sewage Treatment Plant Influent and Effluent** – The permittee must collect samples at the location(s) and frequency as specified in the SPDES permit limitations table.
- ii. **Key Locations and Potential Mercury Sources** – The permit includes reduced monitoring requirements and does not require key location sampling. See section 2.a.iv below.
- iii. **Hauled Wastes** – The permittee must establish procedures for the acceptance of hauled waste to ensure the hauled waste is not a potential mercury source. Loads which may exceed 500 ng/L,³ must receive approval from the DEC prior to acceptance.
- iv. **Decreased Monitoring Requirements** – The permittee has an EEQ at or below 12 ng/L and the permit includes the following requirements:
 - 1) Reduced requirements
 - a) Conduct influent monitoring, sampling quarterly, in lieu of monitoring within the collection system, such as at *key locations*; and
 - b) Conduct effluent compliance sampling quarterly.
 - 2) If a facility with reduced requirements reports discharges above 12 ng/L for two of four consecutive effluent samples, the DEC may undertake a Department-initiated modification to remove the allowance of reduced requirements.
 - 3) Under the decreased permit requirements, the facility must continue to conduct a status report, as applicable in accordance with 2.c of this MMP, to determine if any waste streams have changed.
- v. Additional monitoring must be completed as required elsewhere in this permit (e.g., locations tributary to compliance points).

² Outfall monitoring must be conducted using the methods specified in Table 8 of *DOW 1.3.10*.

³A level of 0.2 mg/L (200,000 ng/L) or more is considered hazardous per 40 CFR Part 261.11. 500 ng/L is used here to alert the permittee that there is an unusual concentration of mercury and that it will need to be managed appropriately.

MERCURY MINIMIZATION PROGRAM (MMP) - Type I (Continued)

- b. Control Strategy - The control strategy must contain the following minimum elements:
- i. Pretreatment/Sewer Use Law - The permittee must review pretreatment program requirements and the Sewer Use Law (SUL) to ensure it is up-to-date and enforceable with applicable permit requirements and will support efforts to achieve a dissolved mercury concentration of 0.70 ng/L in the effluent.
 - ii. Monitoring and Inventory/Inspections for Outfall 002 -
 - 1) Monitoring shall be performed as described in 2.a above. As mercury sources are found, the permittee must enforce its sewer use law to track down and minimize these sources.
 - 2) The permittee must inventory and/or inspect users of its system as necessary to support the MMP.
 - a) Dental Facilities
 1. The permittee must maintain an inventory of each dental facility.
 2. The permittee must inspect each dental facility at least once every five years to verify compliance with the wastewater treatment operation, maintenance, and notification elements of 6 NYCRR 374.4. Alternatively, the permittee may develop and implement an outreach program,⁴ which informs users of their responsibilities, and collect the "Amalgam Waste Compliance Report for Dental Dischargers"⁵ form, as needed, to satisfy the inspection requirements. The permittee must conduct the outreach program at least once every five years and ensure the "Amalgam Waste Compliance Report for Dental Dischargers" are submitted by new users, as necessary. The outreach program could be supported by a subset of site inspections.
 3. A file shall be maintained containing documentation demonstrating compliance with 2.b.ii.2)a) above. This file shall be available for review by DEC representatives and copies shall be provided upon request.
 - b) Other *potential mercury sources*
 1. The permittee must maintain an inventory of other *potential mercury sources*.
 2. The permittee must inspect other *potential mercury sources* once every five years. Alternatively, the permittee may develop and implement an outreach program which informs users of their responsibilities as *potential mercury sources*. The permittee must conduct the outreach program at least once every five years. The outreach program should be supported by a subset of site inspections.
 3. A file shall be maintained containing documentation demonstrating compliance with 2.b.ii.2)b) above. This file shall be available for review by DEC representatives and copies shall be provided upon request.
 - iii. Systems with CSO & Type II SSO Outfalls – Permittees must prioritize *potential mercury sources* upstream of CSOs and Type II SSOs for mercury reduction activities and/or controlled-release discharge.
 - iv. Equipment and Materials – Equipment and materials (e.g., thermometers, thermostats) used by the permittee, which may contain mercury, must be evaluated by the permittee. As equipment and materials containing mercury are updated/replaced, the permittee must use mercury-free alternatives, if possible.
 - v. Bulk Chemical Evaluation – For chemicals, used at a rate which exceeds 1,000 gallons/year or 10,000 pounds/year, the permittee must obtain a manufacturer's certificate of analysis, a chemical analysis performed by a certified laboratory, and/or a notarized affidavit which describes the substances' mercury concentration and the detection limit achieved. If possible, the permittee must only use bulk chemicals utilized in the wastewater treatment process which contain <10 ppb mercury.

⁴ For example, the outreach program could include education about sources of mercury and what to do if a mercury source is found.

⁵ The form, "Amalgam Waste Compliance Report for Dental Dischargers," can be found here:

https://www.dec.ny.gov/docs/water_pdf/dentalform.pdf

MERCURY MINIMIZATION PROGRAM (MMP) - Type I (Continued)

- c. **Status Report** - An annual status report must be developed and maintained on site, in accordance with the [Schedule of Additional Submittals](#), summarizing:
- All MMP monitoring results for Outfall 002 for the previous reporting period;
 - A list of known and *potential mercury sources* for Outfall 002
 - If the permittee meets the criteria for MMP Type IV, the permittee must notify the DEC for a permittee-initiated modification;
 - All actions undertaken, pursuant to the control strategy, during the previous reporting period;
 - Actions planned, pursuant to the control strategy, for the upcoming reporting period; and
 - Progress towards achieving a dissolved mercury concentration of 0.70 ng/L in the effluent (e.g., summarizing reductions in effluent concentrations as a result of the control strategy implementation and/or installation/modification of a treatment system).

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

3. **MMP Modification** - The MMP must be modified whenever:
- Changes at the facility, or within the collection system, increase the potential for mercury discharges;
 - Effluent discharges exceed the current permit limitation(s); or
 - A letter from the DEC identifies inadequacies in the MMP.

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

DEFINITIONS:

Key location – a location within the collection/wastewater system (e.g. including but not limited to a specific manhole/access point, tributary sewer/wastewater connection, or user discharge point) identified by the permittee as a potential mercury source. The permittee may adjust key locations based upon sampling and/or best professional judgement.

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

DISCHARGE NOTIFICATION REQUIREMENTS

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

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

N.Y.S. PERMITTED DISCHARGE POINT

SPDES PERMIT No.: NY_____

OUTFALL No. : _____

For information about this permitted discharge contact:

Permittee Name: _____

Permittee Contact: _____

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

OR:

NYSDEC Division of Water Regional Office Address:

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

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

INDUSTRIAL PRETREATMENT PROGRAM IMPLEMENTATION REQUIREMENTS

A. **DEFINITIONS:** Generally, terms used in this Section shall be defined as in the General Pretreatment Regulations (40 CFR Part 403). Specifically, the following definitions apply to terms used in this Section:

1. Categorical Industrial User (CIU): an industrial user of the POTW that is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N;
2. Local Limits: General Prohibitions, specific prohibitions and specific limits as set forth in 40 CFR 403.5.
3. The Publicly Owned Treatment Works (POTW): as defined by 40 CFR 403.3(q) and that discharges in accordance with this permit.
4. Program Submission(s): requests for approval or modification of the POTW Pretreatment Program submitted in accordance with 40 CFR 403.11 or 403.18 and approved by USEPA on September 11, 1984.
5. Significant Industrial User (SIU):
 - a) CIUs;
 - b) Except as provided in 40 CFR 403.3(v)(3), any other industrial user that discharges an average of 25,000 gallons per day or more of process wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater) to the POTW;
 - c) Except as provided in 40 CFR 403.3(v)(3), any other industrial user that contributes a process waste stream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant;
 - d) Any other industrial user that the permittee designates as having a reasonable potential for adversely affecting the POTW's operation or for violating a pretreatment standard or requirement.
6. Substances of Concern: Substances identified by the New York State Department of Environmental Conservation Industrial Chemical Survey as substances of concern.

B. **IMPLEMENTATION:** The permittee shall implement a POTW Pretreatment Program in accordance 40 CFR Part 403, 40 CFR Part 122, and as set forth in the permittee's approved Program Submission(s). Modifications to this program shall be made in accordance with 40 CFR 403.18. Specific program requirements are as follows:

1. Industrial Survey: To maintain an updated inventory of industrial dischargers to the POTW the permittee shall:
 - a) Identify, locate and list all industrial users who might be subject to the industrial pretreatment program from the pretreatment program submission and any other necessary, appropriate and available sources. This identification and location list will be updated, at a minimum, every five years. As part of this update the permittee shall collect a current and complete New York State Industrial Chemical Survey form (or equivalent) from each SIU.
 - b) Identify the character and volume of pollutants contributed to the POTW by each industrial user identified in B.1.a above that is classified as a SIU.
 - c) Identify, locate and list, from the pretreatment program submission and any other necessary, appropriate and available sources, all SIUs of the POTW.
 - d) Provide a written technical evaluation of the need to revise local limits following permit issuance or reissuance.
2. Control Mechanisms: To provide adequate notice to and control of industrial users of the POTW the permittee shall:
 - a) Inform by certified letter, hand delivery courier, overnight mail, or other means which will provide written acknowledgment of delivery, all industrial users identified in B.1.a. above of applicable pretreatment standards and requirements including the requirement to comply with the local sewer use law, regulation or ordinance and any applicable requirements under section 204(b) and 405 of the Federal Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.

INDUSTRIAL PRETREATMENT PROGRAM IMPLEMENTATION REQUIREMENTS (continued)

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

INDUSTRIAL PRETREATMENT PROGRAM IMPLEMENTATION REQUIREMENTS (continued)

- D. **REPORTING:** The permittee shall provide to the offices listed on the Monitoring, Reporting and Recording page of this permit and to the Chief-Water Compliance Branch, USEPA Region II, 290 Broadway, New York, NY 10007, a periodic report that briefly describes the permittee's program activities over the previous year. This report shall be submitted in accordance with the Schedule of Submittals to the above noted offices within 60 days of the end of the reporting period. The reporting period shall be annual with reporting period(s) ending on April 30 of each year. The periodic report shall include:
1. **Industrial Survey:** Updated industrial survey information in accordance with 40 CFR 403.12(i)(1) (including any NYS Industrial Chemical Survey forms updated during the reporting period).
 2. **Implementation Status:** Status of Program Implementation, to include:
 - a) Any interference, upset or permit violations experienced at the POTW directly attributable to industrial users.
 - b) Listing of SIUs issued permits.
 - c) Listing of SIUs inspected or monitored during the previous reporting period and summary of results.
 - d) Listing of SIUs notified of promulgated pretreatment standards or applicable local standards who are on compliance schedules. The listing should include for each facility the final date of compliance.
 - e) Summary of POTW monitoring results not already submitted on Discharge Monitoring Reports and toxic loadings from SIU's organized by parameter.
 - f) A summary of additions or deletions to the list of SIUs, with a brief explanation for each deletion.
 3. **Enforcement Status:** Status of enforcement activities to include:
 - a) Listing of SIUs in significant non-compliance (as defined by 40 CFR 403.8(f)(2)(viii)) with federal or local pretreatment standards at end of the reporting period.
 - b) Summary of enforcement activities taken against non-complying SIUs. The permittee shall provide a copy of the public notice of significant violators as specified in 40 CFR 403.8(f)(2)(viii).
- E. **ADDITIONAL PRETREATMENT CONDITIONS:**
1. **Notification of Material Change:**
 - a) Facility shall provide adequate notice to the EPA prior to the introduction of any new pollutants from an indirect discharger that is subject to categorical standards and prior to any substantial change in the volume or character of pollutants by existing sources (40 CFR 122.42 (b) (1&2)). Adequate notice shall include information on (i) the quality and quantity of effluent introduced into the facility and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the facility (40 CFR 122.42 (b)(3)).
 - b) Facility shall provide adequate notice to the DEC prior to the addition or modification of any SIUs or CIUs which may materially change the nature of the discharge from the POTW or increase the discharge of one or more substances authorized in this permit or discharge a substance not currently authorized in this permit (6 NYCRR Part 750-2.9(a)(1)). Adequate notice shall include information on (i) the quality and quantity of effluent introduced into the facility and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the facility (6 NYCRR 750-2.9 (a)(1)(ii)). The noticed act is prohibited until the DEC determines whether a permit modification is necessary pursuant to 750-2.9(a)(2).

SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

| Outfall(s) | Compliance Action | Compliance Date ⁶ |
|---|--|---|
| 002, 001 | ACHIEVE FINAL EFFLUENT LIMITS Upon DEC acceptance of Construction Completion Certification of No Feasible Alternative (NFA) Upgrades at the WWTF, the permittee shall achieve compliance with the final effluent limits for total phenols and total residual chlorine at Outfall 002, and fecal coliform at Outfall 001. | Upon Department Acceptance of Construction Completion of NFA Upgrades |
| Unless noted otherwise, the above actions are one-time requirements. | | |

| OUTFALL | PARAMETER | INTERIM EFFLUENT LIMIT | | | | | MONITORING REQUIREMENTS | | | | Notes |
|---------|---|------------------------|---------|---------|-------|-------|-------------------------|-------------------|----------|------|-------|
| | | Type | Limit | Units | Limit | Units | Sample Frequency | Sample Type | Location | | |
| | | | | | | | | | Inf. | Eff. | |
| 002 | Total Residual Chlorine | Daily Maximum | 2.0 | mg/L | | | 6/Day | Grab | - | X | 1 |
| 002 | Total Phenols | Monthly Average | Monitor | ug/L | 36.6 | lb/d | 1/Month | 24-Hour Composite | - | X | 1,2 |
| 001 | Fecal Coliform | 7d Geometric Mean | Monitor | #/100mL | | | 1/Per Event | Grab | - | X | 1,3 |
| Notes: | 1. Interim limits expire upon Construction Completion Certification of NFA Upgrades at the WWTF in accordance with NYSDEC Consent Judgement Case No. R9-20060922-35. 2. At least 4 individual manual grab samples must be collected over the course of 24 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. 3. Required grab samples shall be collected a minimum of once every four hours during each event. Sampling shall begin within 30 minutes of the start of the discharge from Outfall 001. | | | | | | | | | | |

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

⁶ 6 NYCRR 750-1.14 (a)

MONITORING LOCATIONS

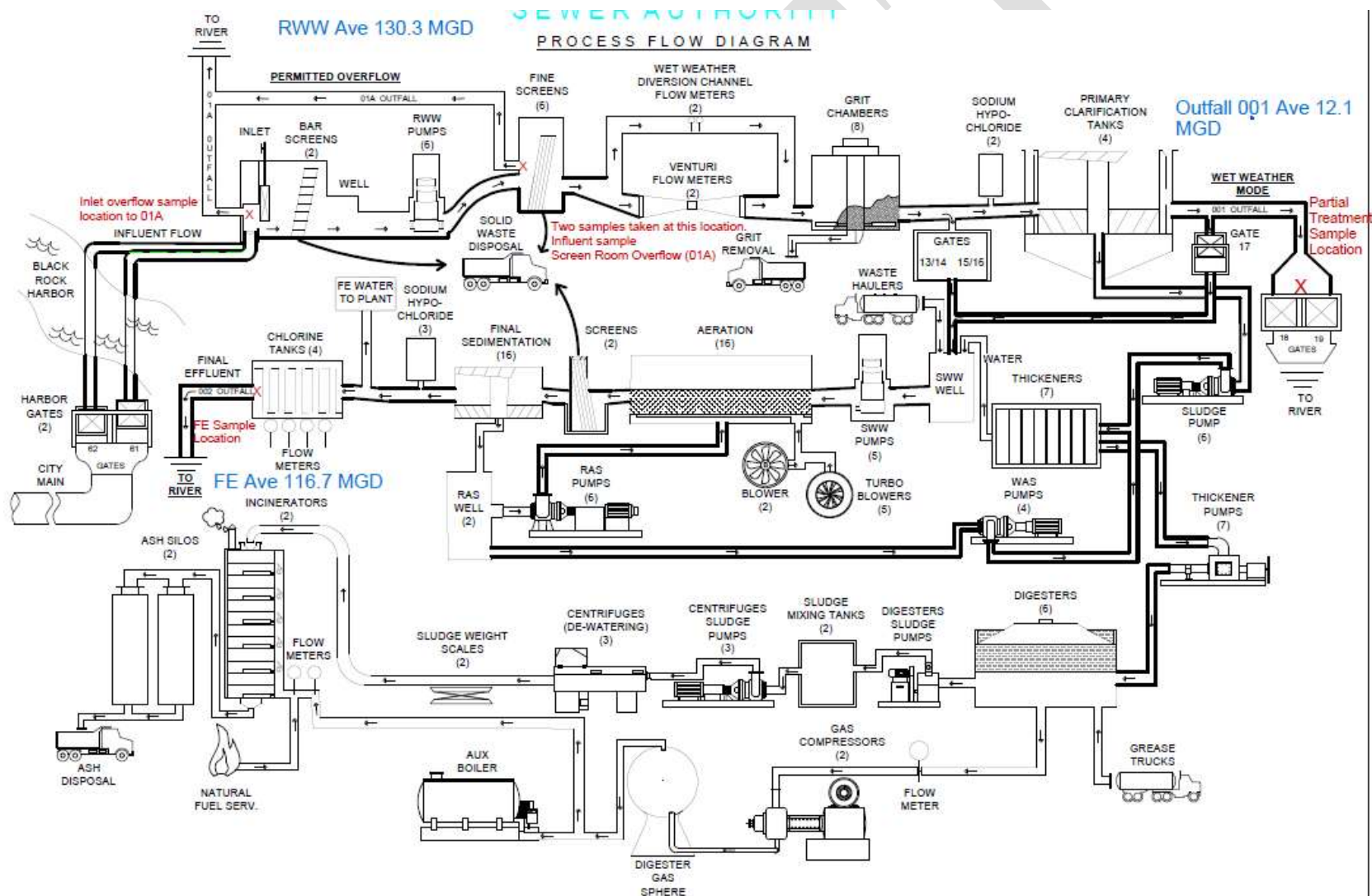
The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the location(s) specified below:

Influent Sample: The sample shall be collected at the fine screens

Effluent Samples: Samples shall be collected as follows, prior to discharge to the Niagara River.

002 & 001 – The sample shall be collected following disinfection.

01A – The sample shall be collected at one or both of the following locations. When both locations are sampled, the two samples may be composited for reporting purposes. a) At the WWTF headworks, prior to the bar screens; and or b) At the overflow from the fine screen wet well.



GENERAL REQUIREMENTS

- A. The regulations in 6 NYCRR Part 750 are hereby incorporated by reference and the conditions are enforceable requirements under this permit. The permittee shall comply with all requirements set forth in this permit and with all the applicable requirements of 6 NYCRR Part 750 incorporated into this permit by reference, including but not limited to the regulations in paragraphs B through I as follows:
- B. General Conditions
- | | |
|--|---|
| 1. Duty to comply | 6 NYCRR 750-2.1(e) & 2.4 |
| 2. Duty to reapply | 6 NYCRR 750-1.16(a) |
| 3. Need to halt or reduce activity not a defense | 6 NYCRR 750-2.1(g) |
| 4. Duty to mitigate | 6 NYCRR 750-2.7(f) |
| 5. Permit actions | 6 NYCRR 750-1.1(c), 1.18, 1.20 & 2.1(h) |
| 6. Property rights | 6 NYCRR 750-2.2(b) |
| 7. Duty to provide information | 6 NYCRR 750-2.1(i) |
| 8. Inspection and entry | 6 NYCRR 750-2.1(a) & 2.3 |
- C. Operation and Maintenance
- | | |
|-----------------------------------|--------------------------------------|
| 1. Proper Operation & Maintenance | 6 NYCRR 750-2.8 |
| 2. Bypass | 6 NYCRR 750-1.2(a)(17), 2.8(b) & 2.7 |
| 3. Upset | 6 NYCRR 750-1.2(a)(94) & 2.8(c) |
- D. Monitoring and Records
- | | |
|---------------------------|--|
| 1. Monitoring and records | 6 NYCRR 750-2.5(a)(2), 2.5(a)(6), 2.5(c)(1), 2.5(c)(2), & 2.5(d) |
| 2. Signatory requirements | 6 NYCRR 750-1.8 & 2.5(b) |
- E. Reporting Requirements
- | | |
|---|-----------------------------|
| 1. Reporting requirements | 6 NYCRR 750-2.5, 2.7 & 1.17 |
| 2. Anticipated noncompliance | 6 NYCRR 750-2.7(a) |
| 3. Transfers | 6 NYCRR 750-1.17 |
| 4. Monitoring reports | 6 NYCRR 750-2.5(e) |
| 5. Compliance schedules | 6 NYCRR 750-1.14(d) |
| 6. 24-hour reporting | 6 NYCRR 750-2.7(c) & (d) |
| 7. Other noncompliance | 6 NYCRR 750-2.7(e) |
| 8. Other information | 6 NYCRR 750-2.1(f) |
| 9. Additional conditions applicable to a POTW | 6 NYCRR 750-2.9 |
- F. Planned Changes
1. The permittee shall give notice to the DEC as soon as possible of planned physical alterations or additions to the permitted facility when:
 - a. The alteration or addition to the permitted facility may meet any of the criteria for determining whether facility is a new source in 40 CFR §122.29(b); or
 - b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject either to effluent limitations in the permit, or to notification requirements under 40 CFR §122.42(a)(1); or
 - c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

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

GENERAL REQUIREMENTS (continued)

2. Notification Requirement for POTWs

All POTWs shall provide adequate notice to the Department and the USEPA of the following:

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

POTWs shall submit a copy of this notice to the United States Environmental Protection Agency, at the following address:

U.S. EPA Region 2, Clean Water Regulatory Branch, 290 Broadway, 24th Floor, New York, NY 10007-1866

G. Sludge Management

The permittee shall comply with all applicable requirements of 6 NYCRR Part 360.

H. SPDES Permit Program Fee

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

I. Water Treatment Chemicals (WTCs)

New or increased use and discharge of a WTC requires prior DEC review and authorization. At a minimum, the permittee must notify the DEC in writing of its intent to change WTC use by submitting a completed *WTC Notification Form* for each proposed WTC. The DEC will review that submittal and determine if a SPDES permit modification is necessary or whether WTC review and authorization may proceed 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 in writing by the DEC.
2. The permittee shall maintain a logbook of all WTC use, noting for each WTC the date, time, exact location, and amount of each dosage, and, the name of the individual applying or measuring the chemical. The logbook must also document that adequate process controls are in place to ensure that excessive levels of WTCs are not used.
3. The permittee shall submit a completed WTC Annual Report Form each year that they use and discharge WTCs. This form shall be submitted in electronic format and attached to either the December DMR or the annual monitoring report required below. The *WTC Notification Form* and *WTC Annual Report Form* are available from the DEC's website at: <http://www.dec.ny.gov/permits/93245.html>

RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

- A. The monitoring information required by this permit shall be retained for a period of at least five years from the date of the sampling for subsequent inspection by the DEC or its designated agent.
- B. Discharge Monitoring Reports (DMRs): Completed DMR forms shall be submitted for each 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 <https://www.dec.ny.gov/chemical/8461.html>. **Hardcopy paper DMRs will only be accepted if a waiver from the electronic submittal requirements has been granted by DEC to the facility.**

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

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

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

Department of Environmental Conservation
Division of Water, Bureau of Water Permits
625 Broadway, Albany, New York 12233-3505

Phone: (518) 402-8111

Department of Environmental Conservation
Regional Water Engineer, Region 9
700 Delaware Avenue, Buffalo, NY 14209

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

| SCHEDULE OF ADDITIONAL SUBMITTALS | | |
|--|---|---|
| Outfall(s) | Required Action | Due Date |
| 002 | <p><u>EMERGING CONTAMINANT (EC) MINIMIZATION PROGRAM</u> The permittee shall initiate and continue track down of potential sources by utilizing the “Emerging Contaminants Investigation Checklist for POTWs” available at Emerging Contaminants In NY's Waters - NYSDEC and submit reports summarizing:</p> <ul style="list-style-type: none"> a. All EC monitoring results taken to date; b. A list of known and potential EC sources; c. All actions taken to reduce EC contaminants; and d. Proposed next steps, including a monitoring plan to identify/confirm EC sources, and ensure continued progress towards minimization/eliminating contaminants. | Confirmation of initial Action Level exceedance + 12 months and every 6 months thereafter until effluent falls below action levels for at least 12 months or until further notified by the Department |
| 001 & 002 | <p><u>WATER TREATMENT CHEMICAL (WTC) ANNUAL REPORT FORM</u> The permittee shall submit a completed WTC Annual Report Form each year that Water Treatment Chemicals are used. The form shall be attached to the December DMR.</p> | December DMR (January 28 th) |
| 002 | <p><u>ANNUAL FLOW CERTIFICATION</u> The permittee shall submit an Annual Flow Certification form each year in accordance with 750-2.9(C)(4). The form shall be attached to the February DMR or submitted through nForm.</p> | February DMR (March 28 th) |
| 002 | <p><u>BIENNIAL POLLUTANT SCAN</u> The permittee shall implement an ongoing monitoring program and perform effluent sampling every two years as specified in footnote of the permit limits table.</p> | Retain and submit with next NY-2A Application |
| 002 | <p><u>WHOLE EFFLUENT TOXICITY (WET) TESTING</u> WET testing shall be performed as required in the footnote of the permit limits table. The toxicity test report including all information requested of this permit shall be attached to your WET DMRs and sent to the WET@dec.ny.gov email address.</p> | Within 60 days following the end of each monitoring period |
| 002 | <p><u>WWTF SPECIAL CONDITION #4</u> The permittee shall develop and submit for Department approval, a routine schedule for settled wastewater wet well and aeration system drain down and inspection to monitor accumulation of grit. Upon Department approval, this routine schedule shall be incorporated into the WWTF's Operation and Maintenance Plan.</p> | September 1, 2028 |
| 01A, 001, & 002 | <p><u>WET WEATHER OPERATIONS PLAN (WWOP)</u> The permittee shall submit an updated Wet Weather Operation Plan (WWOP). The WWOP shall outline the optimum operational procedures to transition from dry weather operation mode to wet weather operation mode, and back to dry weather operation mode. These procedures shall be used to optimize the treatment of the maximum volume of wet weather flows possible at the treatment facility during wet weather events, while minimizing discharges from Outfall 001 and meeting the effluent limitations in this permit.</p> | Department Acceptance of Construction Completion of NFA Upgrades + 60 Days |

| SCHEDULE OF ADDITIONAL SUBMITTALS | | |
|--|--|--|
| Outfall(s) | Required Action | Due Date |
| ALL | <u>COMBINED SEWER OVERFLOW (CSO) ANNUAL REPORT</u> The permittee shall submit a Combined Sewer Overflows (CSO) Annual Report, which summarizes the implementation of BMPs and the Long-Term Control Plan (if applicable) via nForm (https://www.dec.ny.gov/pubs/95925.html). Additional information regarding CSO Annual Report is available on-line at https://www.dec.ny.gov/chemical/48595.html . | January 31 st Each Year |
| ALL | <u>POST-CONSTRUCTION COMPLIANCE MONITORING (PCCM) PROGRAM REPORT</u> The permittee shall submit a PCCM Program Report as detailed in the SPECIAL CONDITIONS: CSO CONTROL POLICY section of this permit. The initial report and subsequent reports shall be submitted in accordance with the approved PCCMP. | In Accordance with Approved PCCMP |
| ALL | <u>SENSITIVE AREA REASSESSMENT REPORT</u> The permittee shall submit a report, separately from the PCCM Program Report, that presents the results of the sensitive area reassessment, feasible improvements to eliminate or minimize overflows to sensitive areas, and the permittee's recommendation regarding the elimination or relocation of these outfalls. The permittee shall submit such reports by December 31st in the same year the PCCM Program Report is submitted. | December 31 st of same year PCCM Program Report submitted |
| 002 | <u>MERCURY MINIMIZATION PLAN</u> The permittee must complete and maintain onsite an annual mercury minimization status report in accordance with the requirements of this permit. | Maintained Onsite EDP + 12 months, annually thereafter |
| 002 | <u>INDUSTRIAL PRETREATMENT PROGRAM</u> Submit a report that briefly describes the permittee's program activities over the previous year (May 1 – April 30). The report shall follow the guidelines contained in this permit and be submitted to the Regional Water Engineer and the Bureau of Water permits as well as the USEPA Region II office. | Annually by June 30 th (Within 60 days after the end of the reporting period) |

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

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

SPDES Permit Fact Sheet Buffalo Sewer Authority Bird Island Wastewater Treatment Facility NY0028410



Contents

| | |
|---|----|
| Summary of Permit Changes | 4 |
| Administrative History | 4 |
| Facility Information | 5 |
| Site Overview | 11 |
| Enforcement History | 11 |
| Existing Effluent Quality | 12 |
| Interstate Water Pollution Control Agencies | 12 |
| Additional Site-Specific Concerns | 12 |
| Receiving Water Information | 14 |
| Impaired Waterbody Information | 15 |
| Critical Receiving Water Data & Mixing Zone | 16 |
| Permit Requirements | 18 |
| Whole Effluent Toxicity (WET) Testing | 18 |
| Anti-backsliding | 20 |
| Antidegradation | 20 |
| Discharge Notification Act Requirements | 20 |
| Special Conditions | 20 |
| Requirements for Combined Sewer Overflows (CSOs) | 20 |
| Stormwater Pollution Prevention Requirements | 21 |
| Mercury | 21 |
| Biennial Pollutant Scan | 22 |
| Industrial Pretreatment Program | 22 |
| Schedule(s) of Compliance | 22 |
| Emerging Contaminant Monitoring | 22 |
| Schedule(s) of Additional Submittals | 23 |
| OUTFALL AND RECEIVING WATER SUMMARY TABLE | 24 |
| POLLUTANT SUMMARY TABLE | 24 |
| Outfall 002 | 24 |
| Outfall 01A | 37 |
| Outfall 001 | 38 |
| Appendix: Regulatory and Technical Basis of Permit Authorizations | 40 |
| Regulatory References | 40 |
| Outfall and Receiving Water Information | 40 |
| Interstate Water Pollution Control Agencies | 41 |

Permittee: Buffalo Sewer Authority
Facility: Bird Island Wastewater Treatment Facility
SPDES Number: NY0028410
USEPA Major/Class 05 Municipal

Date: October 20, 2025 v.1.21
Permit Writer: Steve Wood
Water Quality Reviewer: Steve Wood
Full Technical Review

| | |
|--------------------------------|----|
| Existing Effluent Quality..... | 41 |
| Permit Requirements..... | 41 |

Summary of Permit Changes

The New York State Department of Environmental Conservation ("Department", "NYSDEC") has drafted a State Pollutant Discharge Elimination System (SPDES) EBPS permit renewal for the Bird Island Wastewater Treatment Facility (WWTF). The changes to the permit are summarized below:

General

- Updated permit format, definitions, and general conditions
- Added "WWTF Special Conditions" for operation of the WWTF
- Added Schedule of Compliance with interim effluent limits
- Added Schedule of Additional Submittals for several items
- Updated WWTF flow diagram

Outfall 002

- Revised CBOD₅ and TSS loading limitations to use 2 significant figures
- Changed Ammonia from "as NH₃" to "as N"
- Increased Ammonia (as N) sampling from 1/Month to 1/Day
- Reduced the WET action levels from 35 TU_a and 230 TU_c to 3.0 and 20.0 for acute and chronic, respectively
- Added Instantaneous Max monitoring requirement for Flow
- Added Mercury 12-MRA effluent limitation of 5.7 ng/L
- Added Total Phenols concentration compliance level of 5.0 ug/L
- Added concentration reporting for Total Copper and Total Zinc
- Added Action Levels for PFOA and PFOS of 10 ng/L
- Added requirement for quarterly emerging contaminant monitoring
- Added effluent Biennial Pollutant Scan requirement
- Removed requirement for reporting of influent pH, settleable solids, temperature, and ammonia
- Removed Action Levels for Cadmium, Chromium, Dissolved Copper, Lead, Nickel, Dissolved Zinc, Cyanide, and Bis(2-ethylhexyl)phthalate
- Removed TKN monitoring

Outfall 001/01A

- Revised sampling frequency footnote
- Added Outfall 001 7-day geometric mean effluent limitation for Fecal Coliform of 400 cfu/100mL
- Removed TKN monitoring
- Changed Ammonia from "as NH₃" to "as N"

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

1/1/2010 The last full technical review was performed and the SPDES permit became effective with an expiration date of 6/30/2014. The 2010 permit, along with all subsequent modifications, has formed the basis of this permit.

- 7/1/2014 The 2010 permit was administratively renewed and became effective with a new five-year term and expiration date of 6/30/2019.
- 10/1/2014 The 2010 permit was modified to include new language incorporating the approved Combined Sewer Overflow (CSO) Long Term Control Plan (LTCP).
- 6/30/2019 The 2014 permit was allowed to stay in effect pursuant to SAPA¹ issued on 12/11/2018.
- 5/17/2023 Department issued a Request for Information (RFI) to modify and renew the SPDES permit due to the facility's EBPS score². At the time of the RFI, the facility had an EBPS score of 270 and ranking of 57.
- 8/30/2023 The Buffalo Sewer Authority (BSA) submitted a NY-2A permit application.

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

Facility Information

This facility is a publicly owned treatment works that receives flow from domestic and industrial users, including waste from categorical industrial users, with effluent consisting of treated combined sewage. The collection system consists of both separate and combined sewers. The facility accepts flow from significant industrial users (SIUs).

The current 560 MGD treatment facility consists of:

- Preliminary Treatment: Course Manual Bar Screening (1.5"), Fine Mechanical Bar Screening (1"), Vortex Grit Removal
- Primary Treatment: Primary Clarification (4 circular clarifiers)
- Secondary Treatment: Activated Sludge (16, 4-pass aeration tanks & 16 circular clarifiers)
- Advanced Treatment: Phosphorus Removal (Ferric Chloride Addition)
- Disinfection: Chlorination by Liquid Sodium Hypochlorite (4 serpentine chlorine contact tanks)

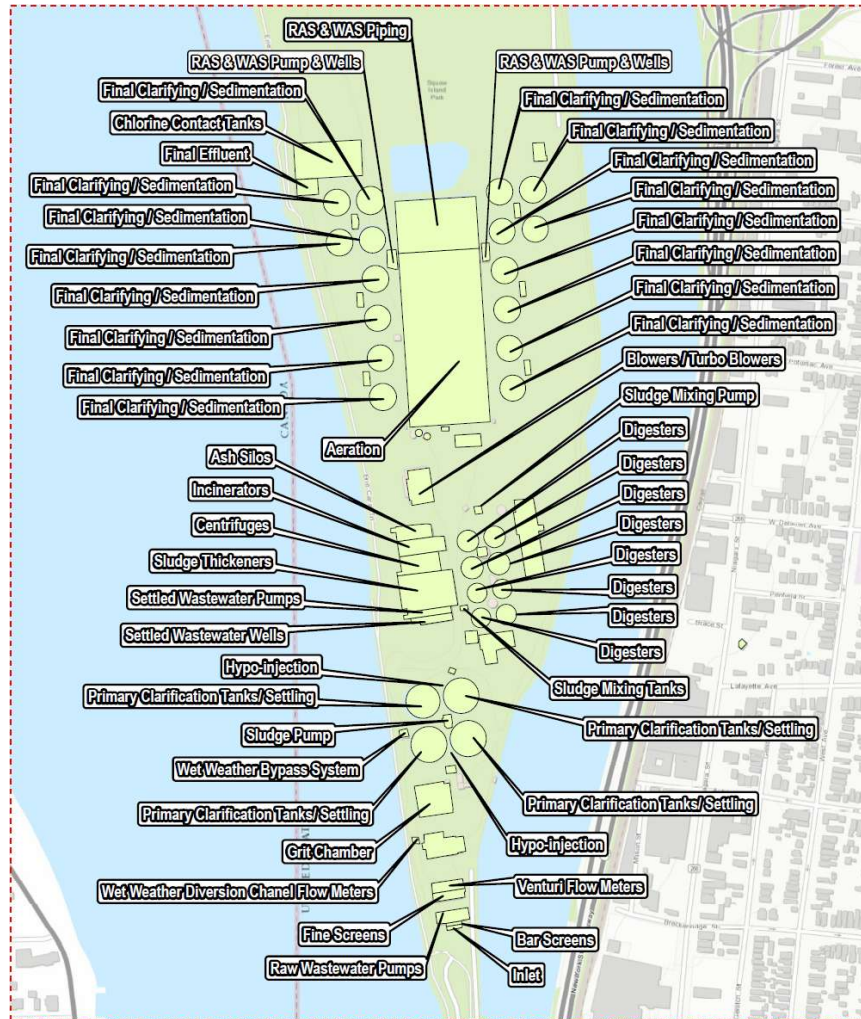
Sludge is thickened by dissolved air floatation, anaerobic digestion, dewatered by centrifuge, and incinerated in multi-stage hearth incinerators.

The secondary treatment outfall (Outfall 002) is fully submerged, approximately 26.6 feet below mean low water level and discharges to the Niagara River via a two-port 108" diameter pipe, with the ports approximately 48 feet and 72 feet offshore. The primary treatment outfall (Outfall 001) is fully submerged and discharges to the Niagara River via a single-port 96" diameter pipe approximately 200 feet offshore. The emergency bypass outfall (01A) is a partially submerged double-barrel (84" diameter each) outfall located at the shoreline.

A diagram of the facility's treatment units was provided as part of BSA's permit application and is seen below.

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

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



The facility is planning the following upgrades/improvements:

- A State of Good Repair (SOGR) project is underway to remove grit from the secondary treatment system.
- Primary and Secondary Treatment Renovations are planned in accordance with a 2013 No Feasible Alternative (NFA) to modify primary treatment capacity, add disinfection at Outfall 001, expand secondary treatment capacity, and expand disinfection capacity at Outfall 002.

The facility accepts wastewater from the following municipalities:

| Municipality | POSS # or SPDES # | Collection System |
|--|-------------------|-------------------|
| City of Buffalo | NY0028410 | Combined |
| Erie County Sewer District (ECSD) 1 | NYS900038 | Separate |
| ECSD 4 | NYS900040 | Separate |
| Town of West Seneca Sewer Districts (WSSD) 1, 2, 3, 4, 5, 9, 10, 13, 14, 15 | NY0203734 | Separate |
| Town of Cheektowaga | NYS900020 | Separate |
| Village of Sloan | NYS900022 | Separate |

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

| Significant Industrial User (SIU) | SIC Code | Categorical Reference (if applicable to 40 CFR) |
|--|--------------------------------------|---|
| PVS Chemical Solutions, Inc. | 2819 | Part 415.546 |
| Safety-Kleen Systems, Inc. | 2992 | Part 437.25 |
| Sorrento Lactalis, Inc. | 2022 | - |
| Tripp Plating Works, Inc. | 3471 | Part 433 |
| Zehnder Rittling, Inc. | 3433 | Part 433.17 |
| Goldman Titanium, Inc. | 5093 | Part 433.17 |
| Veolia Water North America, LLC./Buffalo Water Authority | 4941 | - |
| Elk Street Commerce Park, LLC. | 5171 | - |
| Aurubis Buffalo, Inc. | 3366 3369 3341 3351 3357 | Part 464.26-(a),(b),(c) Part 468.14- (a),(b),(c),(d),(f),(h),(i),(j),(k),(l),(m),(n), (o),(p),(q) Part 468.15-(h),(j),(m),(o) |
| Big Heart Pet Brands, Inc. | 2047 | - |
| Kaleida Health-Buffalo General Hospital Medical Campus | 8062 | - |
| Buffalo Metal Finishing Co., Inc. | 3471 | Part 413.14 – Subpart A |
| Clean Care Linen | 3582 7218 | - |
| Deluxe Anodizing Co., Inc. | 3471 | Part 433 |
| Frontier Plating of Buffalo, Inc. | 3471 | Part 433.17 |
| General Mills Operations, Inc. | 2043 2041 | - |
| Honeywell International, Inc.-BRL | 2869 | Part 414.111 |
| Keystone Corporation | 3471 | Part 433.17 |
| Matrion Advanced Materials Technologies & Services | 3341 3471 3356 | Part 421 L and X Part 433.17 |
| Morgan Services, Inc. | 7218 | - |
| Roberts Gordon, LLC | 3499 | Part 433.17 |
| Sahlen Packing Company, Inc. | 2013 | - |
| Tesla, Inc. | 3699 3629 | Part 469.18 – Subpart A-Semiconductor |
| Rosina Foods – Empire Dr. | 2038 2099 | - |
| Rosina Food Products – Clinton St. | 2013 | - |
| Rosina Food Products – Industrial Parkway | 2013 | - |
| Buffalo Niagara International Airport | 4580 | - |
| United Silicone, Inc. | 2893 | Part 433.17 |
| Mayer Brothers | 2086 | - |
| Upstate Niagara Cooperative – Pleasant Dr. | 2026 | - |
| Upstate Niagara Cooperative – North American Dr. | 5143 | - |

| | | |
|--------------------------------|--------------|---|
| Derrick Corporation | 3532 | Part 433.17 Part 463.2d |
| Greatbatch Medical, Inc. | 3692 3675 | Part 433.17 |
| United Precious Metals | 3341 | Part 421.126 (f) Part 421.266 (e),(h) Part 471.45 (k) |
| Cintas Corporation | 7218 | - |
| Brill Inc. | 2087 | - |
| Culinary Arts Specialties | 2038 | - |
| Avox Systems, Inc. – Plant 2 | 3449 | Part 433.17 |
| Niagara Refining LLC. | 3399 | Part 421 Subpart J – 421.106 (d),(e),(g),(i),(j) |
| Erie Engineered Products, Inc. | 3089 3499 | Part 433.17 |
| Amdor LLC | 3442 | Part 433.17 |
| Parker Hannifin | 3564 | Part 433.17 |
| R&J Metal Finishing, Inc. | 3471 | Part 433.17 |
| Cintas Corporation 67P | 7218 | - |

During wet-weather events, combined sewage is also permitted, under special conditions, to be discharged through the following CSOs:

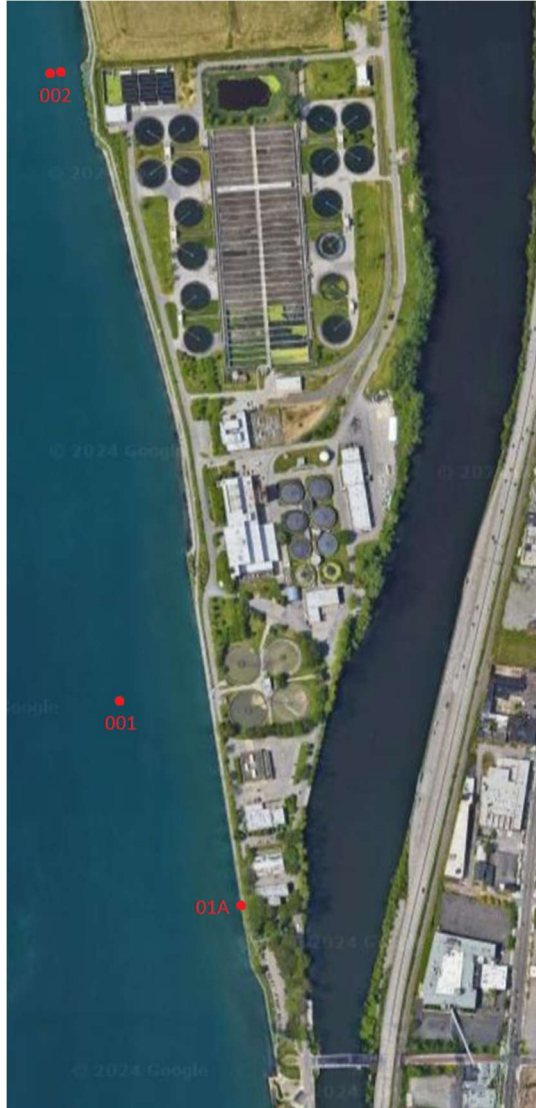
| Outfall Number | Receiving Waterbody | Latitude | Longitude |
|----------------|---------------------|---------------|---------------|
| 003 | Black Rock Canal | 42° 56' 14" N | 78° 54' 26" W |
| 004 | Black Rock Canal | 42° 55' 34" N | 78° 53' 57" W |
| 005 | Black Rock Canal | 42° 55' 27" N | 78° 53' 57" W |
| 006 | Black Rock Canal | 42° 55' 20" N | 78° 53' 59" W |
| 007 | Black Rock Canal | 42° 55' 20" N | 78° 53' 58" W |
| 008 | Black Rock Canal | 42° 55' 15" N | 78° 54' 0" W |
| 009 | Black Rock Canal | 42° 55' 8" N | 78° 54' 3" W |
| 010 | Black Rock Canal | 42° 55' 2" N | 78° 54' 5" W |
| 011 | Niagara River | 42° 54' 49" N | 78° 54' 12" W |
| 012 | Black Rock Canal | 42° 54' 48" N | 78° 54' 7" W |
| 013 | Buffalo Harbor | 42° 53' 20" N | 78° 53' 37" W |
| 014 | Buffalo Harbor | 42° 53' 1" N | 78° 53' 12" W |
| 015 | Buffalo Harbor | 42° 52' 58" N | 78° 53' 7" W |
| 016 | Buffalo Harbor | 42° 52' 53" N | 78° 53' 3" W |
| 017 | Buffalo River | 42° 52' 38" N | 78° 52' 47" W |
| 022 | Buffalo River | 42° 52' 21" N | 78° 52' 25" W |
| 023 | Buffalo River | 42° 52' 1" N | 78° 52' 5" W |
| 025 | Buffalo River | 42° 51' 51" N | 78° 51' 37" W |
| 026 | Buffalo River | 42° 51' 49" N | 78° 51' 3" W |
| 027 | Buffalo River | 42° 51' 48" N | 78° 50' 16" W |
| 028 | Buffalo River | 42° 51' 38" N | 78° 49' 56" W |

| | | | |
|-----|------------------|---------------|---------------|
| 029 | Buffalo River | 42° 51' 37" N | 78° 49' 57" W |
| 031 | Cazenovia Creek | 42° 51' 36" N | 78° 49' 28" W |
| 032 | Buffalo River | 42° 51' 43" N | 78° 49' 35" W |
| 033 | Buffalo River | 42° 51' 45" N | 78° 49' 31" W |
| 035 | Cazenovia Creek | 42° 51' 2" N | 78° 48' 31" W |
| 037 | Cazenovia Creek | 42° 51' 8" N | 78° 48' 40" W |
| 038 | Cazenovia Creek | 42° 51' 10" N | 78° 48' 40" W |
| 039 | Cazenovia Creek | 42° 51' 13" N | 78° 48' 46" W |
| 040 | Cazenovia Creek | 42° 51' 15" N | 78° 48' 46" W |
| 042 | Cazenovia Creek | 42° 51' 19" N | 78° 48' 51" W |
| 044 | Cazenovia Creek | 42° 51' 27" N | 78° 49' 6" W |
| 046 | Cazenovia Creek | 42° 51' 32" N | 78° 49' 13" W |
| 047 | Cazenovia Creek | 42° 51' 35" N | 78° 49' 22" W |
| 048 | Cazenovia Creek | 42° 51' 38" N | 78° 49' 29" W |
| 049 | Buffalo River | 42° 51' 42" N | 78° 49' 36" W |
| 050 | Buffalo River | 42° 51' 49" N | 78° 49' 16" W |
| 051 | Buffalo River | 42° 51' 47" N | 78° 48' 39" W |
| 052 | Buffalo River | 42° 51' 54" N | 78° 48' 8" W |
| 053 | Scajaquada Creek | 42° 55' 26" N | 78° 51' 26" W |
| 054 | Niagara River | 42° 57' 7" N | 78° 54' 36" W |
| 055 | Niagara River | 42° 56' 42" N | 78° 54' 32" W |
| 056 | Scajaquada Creek | 42° 56' 5" N | 78° 52' 34" W |
| 057 | Scajaquada Creek | 42° 55' 43" N | 78° 53' 52" W |
| 058 | Scajaquada Creek | 42° 55' 49" N | 78° 53' 45" W |
| 059 | Scajaquada Creek | 42° 55' 51" N | 78° 53' 39" W |
| 060 | Scajaquada Creek | 42° 56' 4" N | 78° 52' 42" W |
| 061 | Black Rock Canal | 42° 55' 15" N | 78° 54' 1" W |
| 062 | Black Rock Canal | 42° 54' 55" N | 78° 54' 7" W |
| 063 | Black Rock Canal | 42° 54' 8" N | 78° 54' 6" W |
| 064 | Buffalo River | 42° 51' 59" N | 78° 52' 4" W |
| 066 | Buffalo River | 42° 51' 54" N | 78° 48' 7" W |



Site Overview

The Bird Island WWTF is located on Bird/Unity Island to the West of the City of Buffalo. An aerial view of the facility is below with approximate outfall locations.



(Google Maps, 2024)

Enforcement History

BSA developed and submitted to United States Environmental Protection Agency (USEPA) and the Department, a draft LTCP on January 13, 2014. The LTCP was jointly approved by USEPA and the Department on March 18, 2014. On April 11, 2014, the permittee was issued a USEPA Amended Administrative Order on Consent (ACO), CWA-02-2014-3033. The Order requires the following compliance actions:

- Implementation of the approved 2014 LTCP
- Final compliance date of March 18, 2034

The SPDES permit was subsequently modified effective October 1, 2014, to incorporate by reference, the approved 2014 LTCP and the USEPA ACO.

BSA has failed to meet several project deadlines specified in the approved 2014 LTCP and ACO. As a result, the Department and BSA have entered into a State Consent Judgement ("Judgement"), effective October 22, 2025. The Judgement (Case No. R9-20060922-35) includes a requirement to submit an updated LTCP, revised implementation schedule and final compliance date for implementation of the LTCP.

Since the issuance of the 2014 Permit, the facility has received two Notice of Violations for:

- 11/8/2018 failure to comply with LTCP schedule. BSA did not commence design work or start construction on time.
- 6/10/2022 significant non-compliance of effluent limits for BOD 5-Day Percent Removal during the period between October 1st, 2021 and March 31st, 2022.

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

Existing Effluent Quality

The [Pollutant Summary Table](#) presents the existing effluent quality and effluent limitations. The existing effluent quality was determined from Discharge Monitoring Reports submitted by the permittee for the period 6/1/2018 to 6/30/2023. [Appendix Link](#)

Interstate Water Pollution Control Agencies

The facility and each of the outfalls are located within the Great Lakes watershed and International Joint Commission (IJC) compact area which places additional requirements in the SPDES permit. Discharges in the Great Lakes watershed are required to comply with the provisions set forth in 40 CFR Part 132. The Bird Island WWTF discharges to the Niagara River, which is considered a connecting channel of the Great Lakes, as defined in 40 CFR Part 132.2. [Appendix Link](#)

Additional Site-Specific Concerns

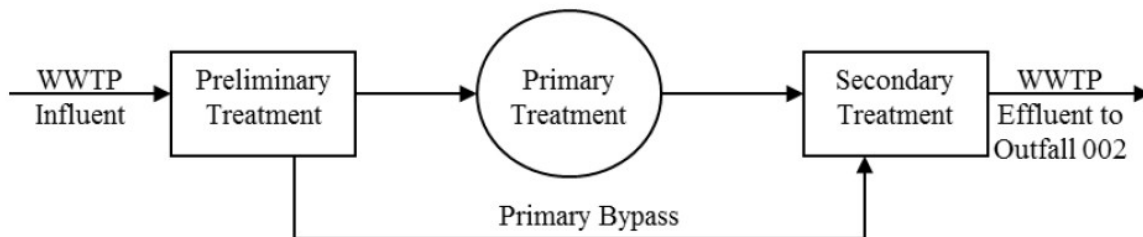
The BSA collection system is 97% combined sewers resulting in significant variations in operations for dry weather conditions vs. wet weather conditions. The 2014 permit requires BSA to provide treatment of a minimum of 450 MGD through the WWTF headworks and a minimum of 300 MGD through the secondary treatment during wet weather. The current WWTF headworks capacity is 560 MGD. The 2014 permit requires that all flows received up to the WWTF headworks capacity which are not discharged from Outfall 002, must be discharged from Outfall 001. BSA is required to manage wet weather operations through implementation of a wet weather operating plan (WWOP). The approved 2025 WWOP is summarized below.

The Bird Island WWTF operates in 3 distinct treatment modes depending on influent flow. The treatment process can be grouped into 4 portions: preliminary treatment (screening and grit removal), primary treatment (clarification), secondary treatment (aeration, secondary clarification, phosphorus removal), and disinfection. Phosphorus removal is conducted through the dosing of ferric chloride in the settled wastewater wet well (prior to aeration). Disinfection is conducted at both Outfall 001 and 002, through the application of liquid sodium hypochlorite. For Outfall 001 discharges, hypochlorite is applied to the influent of the primary settling tanks; and for Outfall 002, hypochlorite is applied to secondary effluent ahead of the chlorine contact tanks.

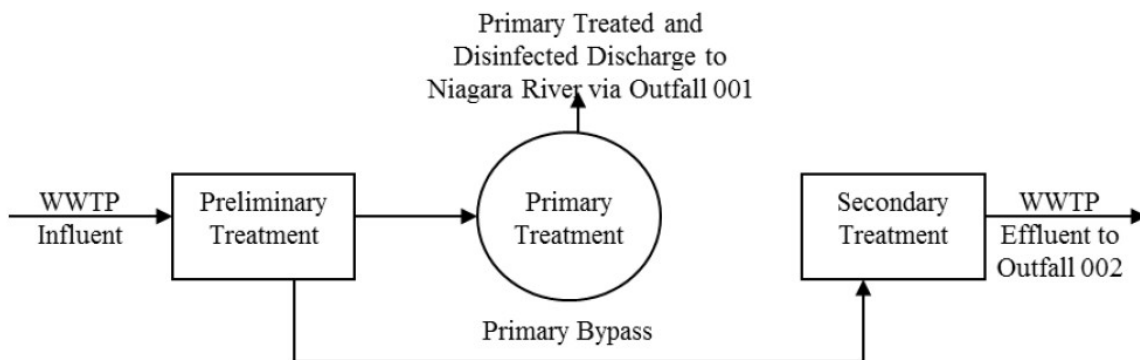
When total flows are below primary treatment capacity, the facility operates in “Normal Mode”. All flows are sent through the entire treatment train (preliminary, primary, secondary, disinfection).



Once influent flow exceeds the capacity of primary treatment, the facility enters “Primary Bypass Mode”. Flows up to the capacity of primary treatment are sent through the full treatment train as in Normal Mode. Flows exceeding the capacity of primary treatment are bypassed directly to secondary treatment and disinfection. All flows during this process mode are discharged from Outfall 002.



If influent flows continue to rise and exceed secondary treatment capacity, the facility enters “Partial Treatment Mode”. Flows are split after preliminary treatment between primary treatment and secondary treatment to maximize total flow throughput. As much flow as possible is routed to the secondary treatment system followed by disinfection and discharge from Outfall 002. Excess flows are sent to the primary treatment system and are discharged from Outfall 001. During this operation, the influent to the primary treatment settling tanks is dosed with Sodium Hypochlorite to provide some level of disinfection.



BSA was required by the 2014 LTCP and ACO, and subsequently the Judgement, to upgrade the primary and secondary treatment systems in two phases under an NFA Project, including upgrades to disinfection for both systems. BSA included an additional State of Good Repair (SOGR) project for secondary treatment, for a total of 3 phases. The secondary treatment

system will be rehabilitated in two phases (Phase I and III). Phase I (SOG) will clear the system of accumulated grit, restoring capacity to 360 MGD. Phase II (NFA) will rehabilitate the primary treatment system and will add a new high-rate disinfection (HRD) system to be used during Partial Treatment Mode. The primary treatment system capacity will remain at 160 MGD. Phase III (NFA) will improve hydraulics through aeration and add additional clarifiers to further increase capacity to 400 MGD. The disinfection system will also be expanded to increase disinfection capacity to 400 MGD.

Additional information on the pathogen reduction requirements can be found in the [Pollutant Summary Table](#). Additional information on required phosphorus removal can be found in the [Impaired Waterbody Information](#) section of this fact sheet.

Receiving Water Information

The facility discharges via the following outfalls:

| Outfall No. | SIC Code | Wastewater Type | Receiving Water |
|-------------|----------|---|--------------------------------|
| 001 | 4952 | Partially treated Combined Sewage (Screening, Settling, Disinfection) | Niagara River, Class A-Special |
| 01A | 4952 | Emergency Bypass (Partially screened combined sewage ³) | Niagara River, Class A-Special |
| 002 | 4952 | Treated Combined Sewage | Niagara River, Class A-Special |

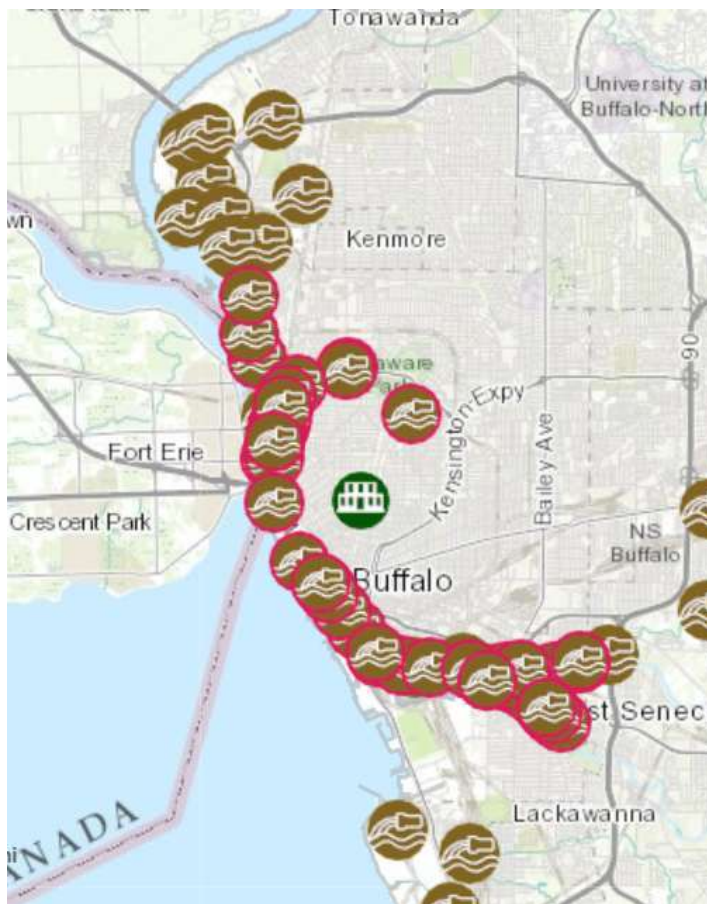
The facility is also authorized to discharge site stormwater through the following 19 outfalls under MSGP NYR00H113 (See [Stormwater Pollution Prevention Requirements](#)):

| Outfall No. | SIC Code | Wastewater Type | Receiving Water |
|-------------|----------|-----------------|--------------------------------|
| 001 - 011 | 4952 | Stormwater | Black Rock Canal, Class C |
| 012 - 019 | 4952 | Stormwater | Niagara River, Class A-Special |

Reach Description: The Niagara River (0101-0006) is fed by Lake Erie, within the Lake Erie/Niagara River watershed. The Niagara River is Class A-Special through its entire reach from Lake Erie to Lake Ontario. Approximately 37 miles downstream from the facility, the Niagara River drains into Lake Ontario, which is a Class A lake. There are several CSO outfalls owned by BSA (brown icons outlined in red) and other SPDES permitted facilities (brown icons with no outline) discharging to the Niagara River and other tributary waters such as Lake Erie and Buffalo River, both upstream and downstream of the Bird Island WWTF.

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

³ Discharges through Outfall 01A may occur from flows bypassed both before and after coarse bar screening.



Impaired Waterbody Information

The Niagara River segment (PWL No. 0101-0006) was first listed on the 1998 [New York State Section 303\(d\) List](#) of Impaired/TMDL Waters as impaired due to PCBs from Contaminated Sediment and Land Disposal. The segment was also listed for suspected PAHs in 2002 and Organochlorine Pesticides in 2006. The segment continues to be listed for each impairment as of the 2020/2022 NYS Section 303(d) List. A TMDL has not been developed to address the impairments and, therefore, there are no applicable wasteload allocations (WLAs) for this facility.

The Black Rock Canal/Channel (PWL No. 0101-0025) was first listed on the 1998 [New York State Section 303\(d\) List](#) of Impaired/TMDL Waters as impaired for Fish Consumption due to PCBs from Contaminated Sediment and Land Disposal. The segment continues to be listed for this impairment as of the 2020/2022 NYS Section 303(d) List. A TMDL has not been developed to address the impairments and, therefore, there are no applicable wasteload allocations (WLAs) for this facility.

Scajaquada Creek, Lower (PWL No. 0101-0023) was first listed on the 2004 [New York State Section 303\(d\) List](#) of Impaired/TMDL Waters as impaired due to Fecal Coliform and Oils & Floating Substances from CSOs and Urban Runoff. The segment was also listed in 2010 for Phosphorus and Low Dissolved Oxygen in 2010 from CSOs and Urban Runoff. The segment continues to be listed for each impairment as of the 2020/2022 NYS Section 303(d) List. A TMDL has not been developed to address the impairments and, therefore, there are no applicable wasteload allocations (WLAs) for this facility.

Lake Erie, Erie Basin⁴ (PWL No. 0104-0032) was first listed on the 2002 [New York State Section 303\(d\) List](#) of Impaired/TMDL Waters as impaired for Fish Consumption due to PCBs from Contaminated Sediment. The segment continues to be listed for each impairment as of the 2020/2022 NYS Section 303(d) List. A TMDL has not been developed to address the impairments and, therefore, there are no applicable wasteload allocations (WLAs) for this facility.

The Buffalo River⁴ (PWL No. 0103-0001) was first listed on the 1998 [New York State Section 303\(d\) List](#) of Impaired/TMDL Waters as impaired for Fish Consumption due to PCBs from Contaminated Sediment. The segment continues to be listed for PCBs as of the 2020/2022 NYS Section 303(d) List. The segment was also listed in 2022 for Aluminum. A TMDL has not been developed to address the impairments and, therefore, there are no applicable wasteload allocations (WLAs) for this facility.

Critical Receiving Water Data & Mixing Zone

The low flow condition for the Niagara River was obtained from the USGS/NYSDEC Bulletin 74, 1979, using the Niagara River at Buffalo, NY gage (Gage ID 04216000). The 1Q10 flow was estimated as half the 7Q10 and the 30Q10 flow was estimated as 1.2 x 7Q10. The low flows at the facility location were assumed equivalent to those at the USGS Gage, given no changes in flow between the 2 locations.

Gage Name: Niagara River at Buffalo, NY
 Gage ID: 04216000
 Drainage Area at Gage (mi²): 264,000
 7Q10 Flow at Gage (CFS): 145,000 Source: Bulletin 74
 Estimated 1Q10 (CFS): 72,500
 Estimated 30Q10 (CFS): 174,000

| DRAINAGE BASIN RATIO | 1Q10 | 7Q10 | 30Q10 |
|--|--------------------------|-----------|-----------|
| Gage Name | Niagara River at Buffalo | | |
| Gage ID Number | 4216000 | | |
| Low Flow at Gage (cfs) | 72500 | 145000 | 174000 |
| Drainage Area at Gage (mi ²) | 264000 | 264000 | 264000 |
| Drainage Area at Facility (mi ²) | 264000 | 264000 | 264000 |
| Drainage Basin Ratio (facility / gage) | 1.0 | 1.0 | 1.0 |
| Calculated Flow at Facility (cfs) | 72500.00 | 145000.00 | 174000.00 |

Consistent with TOGS 1.3.1, the outfall information submitted in the application and mixing zone form was used to develop a mixing zone model for the main outfall (002) to establish dilution ratios for the water quality analysis. Multiple models were developed in this evaluation. As stated in the Facility Information section of this factsheet, Outfall 002 is fully submerged, approximately 26.6 feet below mean low water level and discharges to the Niagara River via a two-port 108" diameter pipe, with the ports approximately 48 feet and 72 feet offshore. The international boundary between Canada and the United States of America is approximately 200 feet off the western shore of Bird Island.

⁴ For Lake Erie and Lake Ontario Shoreline segments included on the Section 303(d) List due to fish consumption restrictions, the primary source of contamination is the open lake rather than the near-shore waters. Due to fish migration, the advisories apply to tributary waters up to the first impassable barrier.

| Outfall No. | Acute Dilution Ratio A(A) | Chronic Dilution Ratio A(C) | Human, Aesthetic, Wildlife Dilution Ratio (HEW) | Basis |
|-------------|---------------------------|-----------------------------|---|--------|
| 002 | 10:1 | 20:1 | 20:1 | CORMIX |

Consistent with Department practice, the modeling software CORMIX was utilized. Unfortunately, CORMIX does not contain the ability to evaluate 2-port outfalls. In lieu of modeling the existing 2-port condition, both a single port and 3-port model were developed initially to evaluate mixing conditions using 108" diameter ports. After building these models, a third model was developed to simulate the effects of the outfall as a single port discharge with the same estimated effluent momentum (the simulated outfall). In the simulated outfall model, a single port diameter was estimated, based on the total effective area of the 2 ports and replacing them with an equivalently sized single port with a diameter of 12.73 feet. This maintains momentum of the effluent with the same discharge flow.

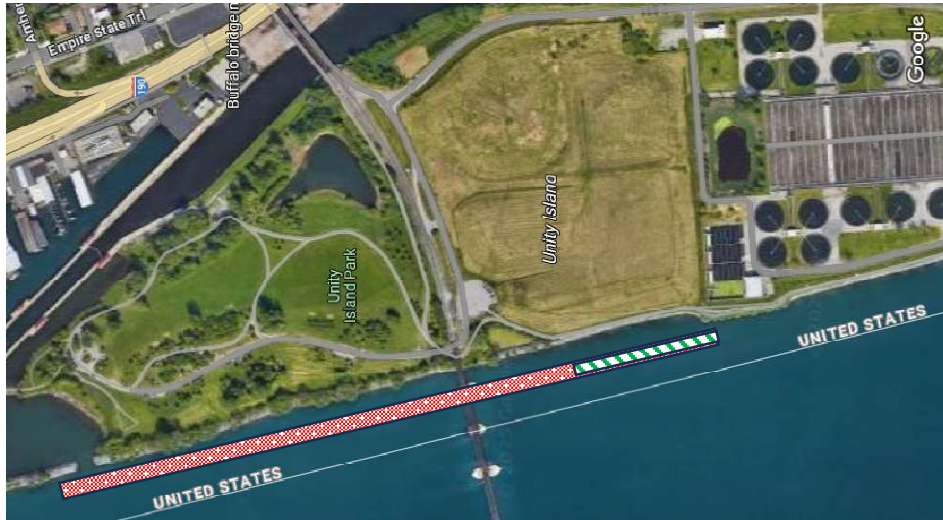
The initial single port model, using one 108" diameter port, resulted in formation of a jet plume mixing condition, achieving 25:1 dilution at the end of discharge-induced mixing (End of the near-field region). However, this model does not realistically evaluate similar effluent momentum of the actual outfall, since the velocity through one port is far greater than the velocity through two ports of equal size. Similarly to the initial single-port model, the three-port model does not accurately reflect realistic mixing conditions that are expected from the existing 2-port outfall, due to the increased discharge area. The Department determined that the best model using the Department's available tools is the simulated outfall. The simulated outfall model estimates a root-mean squared dilution of approximately 4.7:1 at the end of the near-field region (considered equivalent to the end of discharge-induced mixing).

Both the three-port model, using three, 108" diameter ports, and the simulated outfall model resulted in a wake flow condition. "Wake flows are characterized by unsteady "patchy" plumes with high, instantaneous effluent concentrations. At any downstream location from the discharge source there are instantaneous, high concentration pools of effluent flowing by, followed by periods of low concentration effluent pools; The effluent mixing is hence un-steady in behavior. Because of the "patchy" quality of wake flows, measurements of plume trajectory, width, and dilution in laboratory and field studies may be difficult and furthermore may be subject to significant measurement errors [[CORMIX Image Gallery: Wake Flows](#)]."⁵

Since the discharge to the Niagara River, which is a defined connecting channel of the Great Lakes, there is no mixing zone size restriction specified in 40 CFR Part 132. Per TOGS 1.3.1, for incomplete mixing scenarios, mixing zones shall not exceed 20 times the stream width. Acute mixing zone sizing recommendations provided in the USEPA Technical Support Document for Water Quality-based Toxics Control (TSD) are 50 times the discharge length scale (DLS) or 5 times the local water depth. Given the relevant conditions at the outfall, mixing zone size was estimated by applying the USEPA TSD's method of 50 times the DLS. With this methodology, in conjunction with the CORMIX prediction file, the acute dilution is estimated as 10:1. The acute mixing zone was determined using the TSD method's length downstream from the port of approximately 167.87 meters (550 feet) and the model's predicted plume width at the same distance downstream the port centerline of 5.87 meters (19.3 feet). Following Department guidance, the chronic mixing zone size may be set equal to 3-5 times the size of the acute mixing zone. This yields an estimated chronic dilution of 20:1 with a multiplier of 5. The chronic mixing zone size was determined similar to the acute mixing zone, using the model's downstream

⁵ From the CORMIX FAQ, [CORMIX Image Gallery: Wake Flows](#)

distance of approximately 845.9 meters (2,775 feet) downstream and the corresponding width of 9.45 meters (31 feet). The HEW dilution was set equal to the chronic dilution. See below for a visual representation of the acute (green stripes) and chronic (red & white dotted) mixing zones (not to scale).



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

Permit Requirements

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

Whole Effluent Toxicity (WET) Testing

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

- There is the presence of substances in the effluent for which ambient water quality criteria do not exist. (#1)
- 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. (#4)
- Treatment plants which equal or exceed a discharge of 1MGD. (#7)

Consistent with TOGS 1.3.2, a reasonable potential analysis was performed using the existing WET data for this facility (see data below). It was determined that while the analysis indicated no potential for toxicity in the effluent, WET testing is required based on the criteria listed above and WET action levels are being continued in the permit. Given the dilution available and location within the Great Lakes basin, the permit requires chronic only WET testing. Samples will be collected quarterly for years ending in 2 and 7. WET testing action levels of 3.0 TUa and 20.0 TUc have been included in the permit for each species. The acute action level for each species represent the acute dilution ratio times a factor of 0.3. The chronic action levels represent the chronic dilution ratio.

| Test Date | ¹ MSS 48H LC50 (%Effluent) | ² MSS TUa | ³ TUa Action Level | ⁴ MSS Survival 100% Effluent | ⁵ Acute Test Result | ⁶ MSS RPD TUa | ⁷ Acute WET Limit Required | ⁸ MSS 7D NOEC/IC25 (%Effluent) | ⁹ MSS NOEC/IC25 TUc | ¹⁰ TUc Action Level | ¹¹ Chronic Test Result NOEC/IC25 | ¹² MSS RPD IC25 TUc | ¹³ Chronic WET Limit Required |
|-----------|---------------------------------------|----------------------|-------------------------------|---|--------------------------------|--------------------------|---------------------------------------|---|--------------------------------|--------------------------------|---|--------------------------------|--|
| 01/22 | >100% (FI) | <0.3 (FI) | 15.0 | 100% (FI) | Pass | <0.8 | No | >100% (FI)/>100% (FI) | <1.0 (FI)/<1.0 (FI) | 100.0 | Pass/Pass | <2.6 | No |
| 04/22 | >100% (FI) | <0.3 (FI) | 15.0 | 100% (FI) | Pass | <0.8 | No | >100% (FI)/>100% (FI) | <1.0 (FI)/<1.0 (FI) | 100.0 | Pass/Pass | <2.6 | No |
| 08/22 | >100% (FI) | <0.3 (FI) | 15.0 | 98% (F) | Pass | <0.8 | No | >100% (FI)/>100% (FI) | <1.0 (FI)/<1.0 (FI) | 100.0 | Pass/Pass | <2.6 | No |
| 10/22 | >100% (FI) | <0.3 (FI) | 15.0 | 100% (FI) | Pass | <0.8 | No | >100% (FI)/>100% (FI) | <1.0 (FI)/<1.0 (FI) | 100.0 | Pass/Pass | <2.6 | No |

¹Most Sensitive Species 48-hour Lethal Concentration: (F=Fish; I=Invertebrate) is the concentration or percentage of effluent that is lethal to 50% of the exposed organisms over a 48-hour period, and often indicates one species is more sensitive than the other during effluent testing.

²Most Sensitive Species Toxic Units Acute: is calculated as $(100 / \text{MSS 48H LC50})$. However, because ≤ 0.3 TUa is defined as the acceptable amount of Acute toxicity at the edge of the Acute mixing zone, and mathematically $100 / 100 = 1.0$ (i.e. a failing result), non-toxic Acute test results are indicated as < 0.3 .

³Toxic Unit Acute Action Level/Limit: is calculated as $[\text{Acute Dilution Factor} \times 0.3 \text{ TUa}]$ representing the maximum allowable effluent TUa at the edge of the Acute mixing zone ensuring Acute protection of the receiving water. When the Acute Dilution Factor is < 3.3 , the default Acute Action Level of 0.3 TUa is used representing the maximum allowable effluent TUa at the end of pipe.

⁴Most Sensitive Species Survival in 100% Effluent: is the lowest percentage of surviving organisms in 100% effluent, providing additional evidence of unacceptable Acute toxicity when the necessary 50% or greater mortality required to generate an LC50 has not been attained. *Denotes statistically significant mortality in 100% effluent as compared to the control.

⁵Acute Test Result: MSS TUa \leq TUa Action Level/Limit for passing effluent test result and MSS TUa $>$ TUa Action Level/Limit for a failing effluent test result. If unacceptable mortality (i.e. statistically significant as compared to the control) is noted in 100% effluent, this may also be considered a failing test result.

⁶Most Sensitive Species Reasonable Potential Determination Toxic Units Acute: is calculated as $(\text{MSS TUa} \times 2.6)$, the Reasonable Potential Multiplier when four quarterly tests have been completed, taking into account the statistical potential for effluent variability to occur causing an exceedance of the toxicity-based Action Level.

⁷Acute Whole Effluent Toxicity Limit Required: MSS RPD TUa \leq TUa Action Level, then no toxicity-based Limit is required, and the Action Level remains in place. If MSS RPD TUa $>$ TUa Action Level, then a toxicity-based Limit is required, and the Action Level becomes the Limit. **In low dilution situations, the application of the RPD to the Acute results often mathematically suggests the need for Acute WET Limits even when there is no toxicity evident in 100% effluent (i.e. a non-detect). Therefore, this data cannot be used to implement a WET Limit.

⁸Most Sensitive Species 7-day No Observed Effect Concentration or 25% Inhibition Concentration: is the highest concentration or percentage of effluent tested that causes no statistically significant effect to the exposed test organisms as compared to the control over a 7-day period, or the concentration or percentage of effluent that causes a 25% reduction in survival, growth, or reproduction for the test population.

⁹Most Sensitive Species Toxic Units Chronic: is calculated as $(100 / \text{MSS 7D NOEC})$ or $(100 / \text{MSS 7D IC25})$.

¹⁰Toxic Unit Chronic Action Level/Limit: is calculated as $[\text{Chronic Dilution Factor} \times 1.0 \text{ TUc}]$ representing the maximum allowable effluent TUc at the edge of the Chronic mixing zone ensuring Chronic protection of the receiving water.

¹¹Chronic Test Result: MSS NOEC/IC25 TUc \leq TUc Action Level/Limit for passing effluent test result and MSS NOEC/IC25 TUc $>$ TUc Action Level/Limit for a failing effluent test result.

¹²Most Sensitive Species Reasonable Potential Determination Toxic Units Chronic: is calculated as $(\text{MSS IC25 TUc} \times 2.6)$, the Reasonable Potential Multiplier when four quarterly tests have been completed, taking into account the statistical potential for effluent variability to occur causing an exceedance of the toxicity-based Action Level.

¹³Chronic Whole Effluent Toxicity Limit Required: MSS RPD IC25 TUc \leq TUc Action Level, then no toxicity-based Limit is required, and the Action Level remains in place. If MSS RPD IC25 TUc $>$ TUc Action Level, then a toxicity-based Limit is required, and the Action Level becomes the Limit. ***In low dilution situations, the application of the RPD to the Chronic results often mathematically suggests the need for Chronic WET Limits even when there is no toxicity evident in 100% effluent (i.e. a non-detect). Therefore, this data cannot be used to implement a WET Limit.

Anti-backsliding

The limitations contained in the permit are at least as stringent as the previous permit limits and there are no instances of backsliding.

[Appendix Link](#)

Antidegradation

The permit contains effluent limitations which ensure that the best usages of the receiving waters will be maintained. The Notice of Complete Application published in the Environmental Notice Bulletin contains information on the State Environmental Quality Review (SEQR)⁶ 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.

Special Conditions

Special Conditions for the WWTF operational treatment modes have been added to the permit. These conditions, included in the draft permit, require the permittee to operate the WWTF to maximize treatment, including when transitioning between normal, primary bypass, and partial treatment modes during wet-weather event ramp-up and wind-down.

Requirements for Combined Sewer Overflows (CSOs)

[Appendix Link](#)

Best Management Practices (BMPs) for CSOs

The BMPs for CSOs require the permittee to implement operation and maintenance procedures⁷; use the existing treatment facility and collection system to the maximum extent practicable; effect sewer design replacement and drainage planning; maximize pollutant capture; and minimize water quality impacts from CSOs. The submittal requirements are summarized in the [Schedule of Additional Submittals](#). This requirement is being continued from the previous permit.

Long-Term Control Plan (LTCP)

CSO discharges from the permittee are currently being addressed under the LTCP approved by the Department on 3/18/2014. These LTCP requirements were initially required under USEPA ACO # CWA-02-2014-3033 and incorporated by reference in the 2014 Permit. Due to missed milestones and updates to the LTCP Model, BSA and the Department entered into a State Consent Judgement (Case No. R9-20060922-35), effective October 22, 2025. The Judgement requires submission of an updated LTCP, revised implementation schedule and final compliance date for implementation of the LTCP.

Multiple projects are planned under the facility's LTCP to maximize the capacity of the collection system and minimize CSO discharges during wet weather events. Projects

⁶ As prescribed by 6 NYCRR Part 617

⁷ See 6 NYCRR 750-2.8(a)(2)

include in-line storage, off-line storage, green infrastructure, and implementation of real-time control systems.

Post-Construction Compliance Monitoring (PCCM)

PCCM is required by all CSO permittees to verify compliance with the USEPA National CSO Control policy and evaluate attainment of NYS water quality standards. A PCCM plan was submitted in December 2015 and approved on 3/1/2016. Previous PCCM has been conducted annually for implemented LTCP controls from 2016 to present. Monitoring was previously required in accordance with USEPA Administrative Consent Order (CWA-02-2014-3033) and submitted in a PCCM report within 120 days after completion of the monitoring. The State Consent Judgement requires development of a new PCCM Plan to be submitted in conjunction with the revised LTCP documents. Submission of the PCCM Report(s), summarizing the PCCM sampling and evaluation, are detailed in the SPDES permit.

Sensitive Area Reassessment

The permit requires the reassessment of the feasibility of eliminating or relocating CSO outfalls discharging to sensitive areas. The reassessment is required once per permit term, or every five years.

Stormwater Pollution Prevention Requirements

The facility is a publicly owned treatment works ≥ 1 MGD that requires SPDES permit coverage under 40 CFR 122.26 (b)(14)(ix). The Bird Island WWRF has nineteen (19) stormwater outfalls on-site, discharging to the Niagara River and the Black Rock Canal.

The stormwater pollution prevention language has been removed from the permit and the permittee has gained coverage of their stormwater outfalls separately under the SPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP) Sector [T] (GP-0-23-001).

Mercury⁸

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

The facility is a USEPA Major Publicly-Owned Treatment Works (POTW) (Class 05) facility within the Great Lakes Watershed and the permit includes requirements for the implementation of MMP Type I.

The permit includes a daily max total mercury effluent limitation of 50 ng/L, sampled monthly. The facility has ≥ 10 effluent mercury data points and the existing effluent quality (EEQ) of 5.7 ng/L was calculated from the lognormal 95th percentile of 57 mercury effluent samples collected from June 1, 2018 to June 30, 2023. A mercury minimization program consisting of the following is also required:

- Additional monitoring of key locations, as defined in the MMP
- Control strategy for implementation of the MMP
- Annual status report (maintained onsite)

The facility is located within the Great Lakes Basin, therefore, the permit also includes a 12-month rolling average total mercury effluent limitation equal to the EEQ.

⁸ In accordance with DOW 1.3.10 Mercury – SPDES Permitting & Multiple Discharge Variance (MDV), December 30, 2020.

As the EEQ is ≤ 12 ng/L (i.e., the concentration attributed to natural atmospheric deposition), the sampling frequency in the permit is reduced from monthly to quarterly. The permit language reflects additional reductions in the MMP requirements.

Biennial Pollutant Scan

Three effluent samples for applicable parameters must be submitted with an NY-2A Application⁹. The permit includes a requirement to perform biennial sampling (once every two years) of the WWTF effluent for the parameters in the NY-2A Application, Tables A – D. This requirement ensures the data is representative of effluent conditions over the permit term and will be available for the next application submittal and permit review. This requirement is new.

Industrial Pretreatment Program

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

Schedule(s) of Compliance

A Schedule of Compliance is being included¹⁰ for the following items ([Appendix Link](#)):

- Compliance period for attainment of final effluent limits at Outfall 002 for total residual chlorine and total phenols and at Outfall 001 for fecal coliform. The limits were reduced and/or added and a major modification to the treatment facility is underway and affects the operation of the entire facility, including disinfection. These modifications will not be completed until 2031.

Emerging Contaminant Monitoring

Background: Emerging Contaminants, such as Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonic acid (PFOS), and 1,4-Dioxane (1,4-D), have been used in a wide variety of consumer and industrial products as well as in manufacturing processes for decades. These contaminants do not break down easily, therefore their presence in wastewater can remain a concern for years following their discontinued use. As the science surrounding these contaminants is still evolving, additional monitoring is needed to better understand potential sources and background levels. For more information on emerging contaminants, please see the NYSDEC Division of Water web page: [Emerging Contaminants In NY's Waters - NYSDEC](#).

Given the emerging nature of these contaminants; the USEPA's addition of PFOA and PFOS to the hazardous substance list under CERCLA; the USEPA's addition of PFOA and PFOS to the recommended contaminant monitoring list for state fish advisory programs; and pursuant to 6 NYCRR 750-1.14(f), the Department is imposing Action Levels, and minimization programs when there is confirmation those Action Levels are exceeded. This requirement is being imposed for the protection of the downstream receiving waterbody and to gather additional data needed to support establishment of TBELs.

Requirements: Based on the available data and detections of PFOA and PFOS at Outfall 001, Action Levels set at the NYS Department of Health Maximum Contaminant Level (MCL) of 10 ng/L are specified for PFOA and PFOS with monitoring required for the remaining 38 PFAS compounds pursuant to 6 NYCRR Part 750-1.13(b). Monitoring requirements are also consistent with guidance released in USEPA memos dated April 28, 2022, and December 5, 2022. Please see the Pollutant Summary Table below for more information.

⁹ Pursuant to 40 CFR 122.21(j)(4)(vi).

¹⁰ Pursuant to 6 NYCRR 750-1.14

Permittee: Buffalo Sewer Authority
Facility: Bird Island Wastewater Treatment Facility
SPDES Number: NY0028410
USEPA Major/Class 05 Municipal

Date: October 20, 2025 v.1.21
Permit Writer: Steve Wood
Water Quality Reviewer: Steve Wood
Full Technical Review

Schedule(s) of Additional Submittals

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

- Emerging Contaminant Minimization Program
- WTC Annual Report
- Annual Flow Certification
- Biennial Pollutant Scan (maintained onsite)
- WET Testing Result Reports
- Submit Schedule for Facility Grit Accumulation Inspection
- Updated WWOP (post-WWTF construction)
- CSO Annual Report
- PCCM Report
- Sensitive Area Reassessment Report
- Mercury Minimization Program Annual Status Report (maintained onsite)
- IPP Annual Report

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 | 42° 55' 10" N | 78° 54' 16" W | Niagara River | A-S | Ont 158 PWL: 0101-0006 | Lake Erie-Niagara River/ Niagara River Main Stem | 119 ¹¹ | 46,850 | 93,700 | 112,440 | - | - | - | - |
| 01A | 42° 55' 1" N | 78° 54' 14" W | | | | | | | | | - | - | - | - |
| 002 | 42° 55' 16" N | 78° 54' 20" W | | | | | | | | | 180 | 10:1 | 20:1 | 20:1 |

POLLUTANT SUMMARY TABLE

Outfall 002

| Outfall # | 002 | Description of Wastewater: Treated Combined Sewer Effluent | | | | | | | | | | | | | |
|--|--|---|-------------------------|---|---|-------|-------------------|--|--------------------------|---------------|---------|-------------|-----------------|-------------|------------------------------|
| | | Type of Treatment: Screening, grit removal, primary settling, conventional secondary treatment, final clarification, disinfection ¹² | | | | | | | | | | | | | |
| Effluent Parameter | Units | Averaging Period | Existing Discharge Data | | | TBELs | | Water Quality Data & WQBELs | | | | | | ML | Basis for Permit Requirement |
| | | | Permit Limit | Existing Effluent Quality ¹³ | # of Data Points Detects / Non-Detects | Limit | Basis | Ambient Bkgd. Conc. | Projected Instream Conc. | WQ Std. or GV | WQ Type | Calc. WQBEL | Basis for WQBEL | | |
| General Notes: Existing discharge data from June 1, 2018 to June 30, 2023 was obtained from Discharge Monitoring Reports provided by the permittee and additional data provided in the NY-2A application. All applicable water quality standards were reviewed for development of the WQBELs. The standard and WQBEL shown below represent the most stringent. | | | | | | | | | | | | | | | |
| Flow Rate | MGD | 12 MRA | 180 | 130 Actual Average | 61 / 0 | 180 | Design Flow | Narrative: 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 | 6.8 Actual Min | 61 / 0 | 6.0 | 40 CFR 133.102 | 8.1 ¹¹ | - | 6.5 – 8.5 | Range | - | 703.3 | - | TBEL |
| | | Maximum | 9.0 | 8.0 Actual Max | 61 / 0 | 9.0 | | | | | | | | | |
| Consistent with TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. Ambient pH included above is the average of available data from the RIBS station 01-NIAG-0.2. Given the available dilution, an effluent limitation equal to the TBEL is protective of the WQS. | | | | | | | | | | | | | | | |

¹¹ Ambient hardness & pH was calculated from RIBS station 01-NIAG-0.2, located ~36 miles downstream, using 84 samples for Hardness and 65 samples for pH, collected from 2001 - 2016.

¹² Treatment describes standard operational mode.

¹³ Existing Effluent Quality: Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)

| Outfall # | 002 | Description of Wastewater: Treated Combined Sewer Effluent | | | | | | | | | | | | | |
|---|--|---|-----------------------------------|---|---|---------|---------------------|-----------------------------|---|-------------------------|-----------|-------------------------|-----------------|---------------|------------------------------|
| | | Type of Treatment: Screening, grit removal, primary settling, conventional secondary treatment, final clarification, disinfection ¹² | | | | | | | | | | | | | |
| Effluent Parameter | Units | Averaging Period | Existing Discharge Data | | | TBELs | | Water Quality Data & WQBELs | | | | | | ML | Basis for Permit Requirement |
| | | | Permit Limit | Existing Effluent Quality ¹³ | # of Data Points Detects / Non-Detects | Limit | Basis | Ambient Bkgd. Conc. | Projected Instream Conc. | WQ Std. or GV | WQ Type | Calc. WQBEL | Basis for WQBEL | | |
| Temperature | °F | Daily Max | Monitor | 86 Actual Max | 61 / 0 | Monitor | 750-1.13 Monitor | 20.6 °C ¹⁴ | Narrative (Non-Trout): The water temperature at the surface of a stream shall not be raised to more than 90F at any point and... shall not be raised or lowered to more than 5F over the temperature that existed before the addition | | | 704.2 | - | Monitor | |
| | Ambient temperature included above is the average of available data from the RIBS station 01-NIAG-33.4. Consistent with 6 NYCRR 750-1.13(a), monitoring is required and may be used to inform future permitting decisions. This requirement is continued from the previous permit. | | | | | | | | | | | | | | |
| Dissolved Oxygen (DO) | mg/L | Daily Min | Monitoring Not Currently Required | | | - | - | - | 7.11 Critical Point | (A-Special) 6.0 mg/L | Narrative | No Reasonable Potential | - | No Limitation | |
| The downstream DO concentration was modeled using the Streeter-Phelps equations and the following assumptions: Effluent DO = 2 mg/l ((assumed value consistent with TOGS 1.3.1D)), Effluent UOD = 158.03 mg/L (estimated from BOD ₅ and NOD concentrations), Effluent CBOD ₅ = 40 mg/L (assumed secondary treatment requirement), Effluent NOD = 99.5 mg/L (estimated using 99th lognormal percentile of Ammonia (as NH ₃) effluent data). The model also conservatively assumed the ambient flow of the river available for mixing was 50% of the published 7Q10, due to the presence of the international boundary line with Canada. The model assessed dissolved oxygen from the BSA Bird Island WWTF to a point 2 miles downstream. No other dischargers exist within the reach and no other significant waterbody features were necessary to include. The DO concentration at the end of the reach was estimated to be 7.11 mg/L, which is well above the water quality standard. Therefore, the model showed that DO standards are maintained and consequently WQBELs for DO, UOD, and BOD ₅ /CBOD ₅ are unnecessary and the TBELs are protective of water quality. | | | | | | | | | | | | | | | |
| 5-day Biochemical Oxygen Demand (BOD ₅) | mg/L | Monthly Avg | 30 | 19 | 58 / 1 | 30 | 40 CFR 133.102 | - | See Dissolved Oxygen | No Reasonable Potential | - | TBEL | | | |
| | | 7 Day Avg | 45 | 67 | 60 / 0 | 45 | | | | | | | | | |
| | lbs/d | Monthly Avg | 45036 | 27,000 | 59 / 1 | 45,000 | | | | | | | | | |
| | | 7 Day Avg | 67554 | 130,000 | 60 / 0 | 68,000 | | | | | | | | | |
| | % Rem | Minimum | 85 | 85 (Average) | 60 / 0 | 85 | | | | | | | | | |

¹⁴ Ambient temperature was calculated from RIBS station 01-NIAG-33.4, located ~1.0 mile downstream, using 25 samples, collected from 1982 - 2020.

Permittee: Buffalo Sewer Authority
 Facility: Bird Island Wastewater Treatment Facility
 SPDES Number: NY0028410
 USEPA Major/Class 05 Municipal

Date: October 20, 2025 v.1.21
 Permit Writer: Steve Wood
 Water Quality Reviewer: Steve Wood
 Full Technical Review

| Outfall # | 002 | Description of Wastewater: Treated Combined Sewer Effluent | | | | | | | | | | | | | |
|-------------------------------|-------|--|-------------------------|---|--|--------|----------------|-----------------------------|---|---------------|---------|-------------|-----------------|--------------|------------------------------|
| | | Type of Treatment: Screening, grit removal, primary settling, conventional secondary treatment, final clarification, disinfection ¹² | | | | | | | | | | | | | |
| Effluent Parameter | Units | Averaging Period | Existing Discharge Data | | | TBELs | | Water Quality Data & WQBELs | | | | | | ML | Basis for Permit Requirement |
| | | | Permit Limit | Existing Effluent Quality ¹³ | # of Data Points Detects / Non-Detects | Limit | Basis | Ambient Bkgd. Conc. | Projected Instream Conc. | WQ Std. or GV | WQ Type | Calc. WQBEL | Basis for WQBEL | | |
| | | Two outliers were observed, in August 2019 and December 2021. The December 2021 outlier was removed from EEQ calculations. Reported maximum 7-day average load is only 48,000 lbs/d. Consistent with 40 CFR Part 133.102 and TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. In accordance with Department practice, loading limitations have been adjusted to use 2 significant figures. | | | | | | | | | | | | | |
| Total Suspended Solids (TSS) | mg/L | Monthly Avg | 30 | 8.4 | 60 / 0 | 30 | 40 CFR 133.102 | - | Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages. | | | 703.2 | - | TBEL | |
| | | 7 Day Avg | 45 | 20. | 60 / 0 | 45 | | | | | | | | | |
| | lbs/d | Monthly Avg | 45036 | 16,000 | 60 / 0 | 45,000 | | | | | | | | | |
| | | 7 Day Avg | 67554 | 100,000 | 60 / 0 | 68,000 | | | | | | | | | |
| | % Rem | Minimum | 85 | 91 (Average) | 60 / 0 | 85 | | | | | | | | | |
| | | 2 outliers were observed, in October 2020 and December 2021. The December 2021 outlier was removed from EEQ calculations. Reported maximum 7-day average load is only 21,000 lbs/d. Consistent with 40 CFR Part 133.102 and TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. Given the available dilution, an effluent limitation equal to the TBEL, and consistent with TOGS 1.3.3, is protective of water quality standards. | | | | | | | | | | | | | |
| Settleable Solids | mL/L | Daily Max | 0.3 | 0.1 (1 Detect) | 1 / 59 | 0.3 | TOGS 1.3.3 | - | Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages | | | 703.2 | - | TBEL | |
| | | 59 data points were nondetect and one detection of 0.1 mL/L was observed in Mar 2023. An outlier of 90 mL/L (Aug 2022) was removed from EEQ calculations. Consistent with TOGS 1.3.3, the effluent limitation is equal to the TBEL of 0.3 mL/L for POTWs providing secondary treatment without filtration. Given that adequate dilution is available the TBEL is protective of WQS. | | | | | | | | | | | | | |
| Total Kjeldahl Nitrogen (TKN) | mg/L | Daily Max | Monitor | 17 | 61 / 0 | - | - | - | Narrative: None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages. | | | 703.2 | - | Discontinued | |
| | | Previous monitoring of TKN for informational purposes is being discontinued, given existing requirement for Ammonia monitoring and no water quality standard for TKN specifically. | | | | | | | | | | | | | |
| Total Phosphorus | mg/L | Monthly Avg | 1.0 | 1.2 | 61 / 0 | 1.0 | TOGS 1.3.3 | - | Narrative: None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages. | | | 703.2 | - | TBEL | |

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 USEPA Major/Class 05 Municipal

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 Full Technical Review

| Outfall # | 002 | Description of Wastewater: Treated Combined Sewer Effluent | | | | | | | | | | | | | |
|--|-------|---|-----------------------------------|---|---|--------------|------------------|-----------------------------|--------------------------|---------------|---------|-------------------------|-----------------|---------|------------------------------|
| | | Type of Treatment: Screening, grit removal, primary settling, conventional secondary treatment, final clarification, disinfection ¹² | | | | | | | | | | | | | |
| Effluent Parameter | Units | Averaging Period | Existing Discharge Data | | | TBELs | | Water Quality Data & WQBELs | | | | | | ML | Basis for Permit Requirement |
| | | | Permit Limit | Existing Effluent Quality ¹³ | # of Data Points Detects / Non-Detects | Limit | Basis | Ambient Bkgd. Conc. | Projected Instream Conc. | WQ Std. or GV | WQ Type | Calc. WQBEL | Basis for WQBEL | | |
| | | The facility discharges to the Great Lakes and therefore is required to have a 1.0 mg/L MA limitation for Total Phosphorus. Of the 61 data points reviewed, 3 exceedances of the 1.0 mg/L limitation were observed. The existing 1.0 mg/L shall be continued. | | | | | | | | | | | | | |
| Nitrogen, Ammonia (as N) (June 1 – Oct 31) | mg/L | Daily Max | Monitor | 8.8 (as NH ₃) | 26 / 0 | Monitor (MA) | 750-1.13 Monitor | 0.1 | 0.55 | 1.2 | A(C) | No Reasonable Potential | - | Monitor | |
| Nitrogen, Ammonia (as N) (Nov 1 – May 31) | mg/L | Daily Max | Monitor | 11 (as NH ₃) | 34 / 1 | Monitor (MA) | 750-1.13 Monitor | 0.1 | 0.63 | 1.9 | A(C) | | | | |
| | | <p>Monitoring in the 2014 permit for Ammonia is year-round, however the EEQ and reasonable potential analysis data presented above has been split into seasonal periods in order to appropriately assess reasonable potential against the seasonal water quality standards.</p> <p>Summer season: The projected instream concentration was calculated using the EEQ effluent concentration of 8.8 mg/L (as NH₃), a multiplier of 1.3, the human health/aesthetic/wildlife dilution ratio, and an assumed upstream ambient concentration of 0.1 mg/L. The multiplier was selected from USEPA's Technical Support Document Chapter 3.3 to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Given the expected presence of ammonia in the effluent, monitoring shall be continued.</p> <p>Winter Season: The projected instream concentration was calculated using the EEQ effluent concentration of 11 mg/L (as NH₃), a multiplier of 1.2, the human health/aesthetic/wildlife dilution ratio, and an assumed upstream ambient concentration of 0.1 mg/L. The multiplier was selected from USEPA's Technical Support Document Chapter 3.3 to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Given the expected presence of ammonia in the effluent, monitoring shall be continued.</p> <p>Reporting for Ammonia has been changed from (as NH₃) to (as N) for simpler data reporting, as this is consistent with the laboratory reporting units. Values can be converted using the equation: Ammonia (as N) = Ammonia (as NH₃) x 0.8224. Consistent with TOGS 1.3.1.E, the averaging period has been revised from Daily Maximum to Monthly Average. Sampling frequency remains as 1/month.</p> | | | | | | | | | | | | | |
| Mercury, Total | ng/L | Daily Max | 50 | 8.9 | 57 / 0 | - | - | - | - | 0.7 | H(FC) | 50 | GLCA | - | DOW 1.3.10 |
| | ng/L | 12 MRA | Monitoring Not Currently Required | | | - | - | - | - | - | - | 5.7 | - | - | DOW 1.3.10 |

Permittee: Buffalo Sewer Authority
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 SPDES Number: NY0028410
 USEPA Major/Class 05 Municipal

Date: October 20, 2025 v.1.21
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 Full Technical Review

| Outfall # | 002 | Description of Wastewater: Treated Combined Sewer Effluent | | | | | | | | | | | | | |
|-------------------------------|--|---|-------------------------|---|--|---------|-----------------|-----------------------------|---|---------------|---------|-------------------------|-----------------|--------------|------------------------------|
| | | Type of Treatment: Screening, grit removal, primary settling, conventional secondary treatment, final clarification, disinfection ¹² | | | | | | | | | | | | | |
| Effluent Parameter | Units | Averaging Period | Existing Discharge Data | | | TBELs | | Water Quality Data & WQBELs | | | | | | ML | Basis for Permit Requirement |
| | | | Permit Limit | Existing Effluent Quality ¹³ | # of Data Points Detects / Non-Detects | Limit | Basis | Ambient Bkgd. Conc. | Projected Instream Conc. | WQ Std. or GV | WQ Type | Calc. WQBEL | Basis for WQBEL | | |
| | See Mercury section of this fact sheet . | | | | | | | | | | | | | | |
| Coliform, Fecal | #/100 mL | 30d Geo Mean | 200 | 57 | 61 / 0 | 200 | TOGS 1.3.3 | - | Narrative: The monthly geometric mean, from a minimum of five examinations, shall not exceed 200. | | | | 703.4 | - | TBEL |
| | | 7d Geo Mean | 400 | 870 | 61 / 0 | 400 | TOGS 1.3.3 | - | | | | | | | |
| | An outlier measuring 9,078 cfu/100mL was recorded in July 2019 for 7d Geomean. Average 7d Geomean for Fecal Coliform was 260 cfu/100mL. Consistent with TOGS 1.3.3, effluent disinfection is required year-round due to the class of the receiving waterbody. Fecal coliform effluent limitations equal to the TBEL are specified. | | | | | | | | | | | | | | |
| Total Residual Chlorine (TRC) | mg/L | Daily Max | 2.0 | 1.8 | 61 / 0 | 2.0 | TOGS 1.3.3 | - | 0.176 | 0.005 | A(C) | 0.1 | 703.5 | - | WQBEL |
| | Effluent disinfection is currently required year-round and will remain a permit requirement. The WQBEL was calculated by multiplying the WQS by the chronic dilution ratio and a decay factor of five. Due to the low dilution, the calculated WQBEL is less than the TBEL and an effluent limitation equal to the WQBEL is appropriate. | | | | | | | | | | | | | | |
| Phenols, Total | lbs/d | Monthly Avg | 36.6 | 34 | 28 / 33 | 37 | Antibacksliding | 0 | 2.45 ug/L | 1 ug/L | E | 20 ug/L 30 lbs/d | 703.5 | - | WQBEL |
| | The projected instream concentration was calculated using effluent concentration data provided by the facility of 49 ug/L and a multiplier of 1.0. The multiplier was selected from USEPA's Technical Support Document Chapter 3.3 to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates a reasonable potential to cause or contribute to a WQS violation. The previous effluent load limitation of 36.6 lbs/d has been discontinued in favor of a new effluent WQBELs for concentration and loading of 20 ug/L and 30 lbs/d, respectively. | | | | | | | | | | | | | | |
| Cadmium, Total | lbs/d | Daily Max | 30 - AL | 0.21 (1 Detect) | 1 / 60 | 30 - AL | TOGS 1.2.1 | 0 | 0.0131 ug/L | 4.67 ug/L | A(A) | No Reasonable Potential | - | Discontinued | |
| | Only 1 detection of 0.21 lbs/d reported (June 2023), concentration data is not reported under the 2014 permit. The projected instream concentration was calculated using an estimated effluent concentration of 0.14 ug/L (using 0.21 lbs/day & design flow of 180 MGD), a multiplier of 1.0, the acute dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from USEPA's Technical Support Document Chapter 3.3 to account for the number of samples. A metals translator of 1.068 was also applied to convert between the total and dissolved form in accordance with the USEPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation and the Action Level has been discontinued given only 1 detection. | | | | | | | | | | | | | | |
| Chromium, Total | lbs/d | Daily Max | 12.5 - AL | No Detects | | 13 - AL | TOGS 1.2.1 | 0 | 0 ug/L | 85 ug/L | A(C) | No Reasonable Potential | | Discontinued | |

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 SPDES Number: NY0028410
 USEPA Major/Class 05 Municipal

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 Full Technical Review

| Outfall # | 002 | Description of Wastewater: Treated Combined Sewer Effluent | | | | | | | | | | | | | |
|--------------------|--|---|-------------------------|---|--|---------|------------------|-----------------------------|--------------------------|---------------|---------|-------------------------|-----------------|--------------|------------------------------|
| | | Type of Treatment: Screening, grit removal, primary settling, conventional secondary treatment, final clarification, disinfection ¹² | | | | | | | | | | | | | |
| Effluent Parameter | Units | Averaging Period | Existing Discharge Data | | | TBELs | | Water Quality Data & WQBELs | | | | | | ML | Basis for Permit Requirement |
| | | | Permit Limit | Existing Effluent Quality ¹³ | # of Data Points Detects / Non-Detects | Limit | Basis | Ambient Bkgd. Conc. | Projected Instream Conc. | WQ Std. or GV | WQ Type | Calc. WQBEL | Basis for WQBEL | | |
| | No detections reported of 61 samples, therefore there is no reasonable potential to cause or contribute to a WQS violation and the Action Level has been discontinued. | | | | | | | | | | | | | | |
| Copper, Total | lbs/d | Daily Max | 31.9 - AL | 68 | 12 / 49 | 32 - AL | TOGS 1.2.1 | 0 | See Dissolved Copper | | | No Reasonable Potential | | | Action Level |
| Copper, Dissolved | lbs/d | Daily Max | Monitor | 48 | 13 / 48 | Monitor | 750-1.13 Monitor | 0 | 4.35 ug/L | 16 ug/L | A(A) | | | | Discontinued |
| | The projected instream concentration was calculated using an estimated effluent concentration of 45.3 ug/L (using EEQ loading for Total Copper & design flow of 180 MGD), a multiplier of 1.0, the chronic dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from USEPA's Technical Support Document Chapter 3.3 to account for the number of samples. A metals translator of 1.042 was also applied to convert between the total and dissolved form in accordance with the USEPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. The Total Copper Action Level will be continued given the number of detections, however monitoring of Dissolved Copper has been discontinued. Reporting of Total Copper concentration data has been added. | | | | | | | | | | | | | | |
| Total Cyanide | lbs/d | Daily Max | 90.0 - AL | 7.2 | 2 / 59 | 90 - AL | TOGS 1.2.1 | 0 | 0.24 ug/L | 5.2 ug/L | A (C) | No Reasonable Potential | - | Discontinued | |
| | Only 2 detections of Total Cyanide with an EEQ of 7.2 lbs/d reported, concentration data is not reported under the 2014 permit. The projected instream concentration was calculated using an estimated effluent concentration of 4.8 ug/L (using 7.2 lbs/day & design flow of 180 MGD), a multiplier of 1.0, the chronic dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from USEPA's Technical Support Document Chapter 3.3 to account for the number of samples. The WQS is as Free Cyanide, however no Free Cyanide data is available. For the reasonable potential analysis, all Total Cyanide data was conservatively assumed to be Free Cyanide. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation and the Action Level has been discontinued given only 2 detections with a low projected instream concentration. | | | | | | | | | | | | | | |
| Lead, Total | lbs/d | Daily Max | 66.2 - AL | 2.3 (1 Detect) | 1 / 60 | 66 - AL | TOGS 1.2.1 | 0 | 0.06 ug/L | 4.6 ug/L | A(C) | No Reasonable Potential | - | Discontinued | |
| | Only 1 detection of 2.3 lbs/d reported (July 2021), concentration data is not reported under the 2014 permit. The projected instream concentration was calculated using an estimated effluent concentration of 1.5 ug/L (using 2.3 lbs/day & design flow of 180 MGD), a multiplier of 1.0, the chronic dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from USEPA's Technical Support Document Chapter 3.3 to account for the number of samples. A metals translator of 1.306 was also applied to convert between the total and dissolved form in accordance with the USEPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation and the Action Level has been discontinued given only 1 detection. | | | | | | | | | | | | | | |
| Nickel, Total | lbs/d | Daily Max | 43.8 - AL | 5.9 | 2 / 59 | 44 - AL | TOGS 1.2.1 | 0 | 0.19 ug/L | 60 ug/L | A(C) | No Reasonable Potential | - | Discontinued | |

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| Outfall # | 002 | Description of Wastewater: Treated Combined Sewer Effluent | | | | | | | | | | | | | |
|---|--|---|-------------------------|---|--|----------|------------------|-----------------------------|--------------------------|---------------|---------|-------------------------|-----------------|----|------------------------------|
| | | Type of Treatment: Screening, grit removal, primary settling, conventional secondary treatment, final clarification, disinfection ¹² | | | | | | | | | | | | | |
| Effluent Parameter | Units | Averaging Period | Existing Discharge Data | | | TBELs | | Water Quality Data & WQBELs | | | | | | ML | Basis for Permit Requirement |
| | | | Permit Limit | Existing Effluent Quality ¹³ | # of Data Points Detects / Non-Detects | Limit | Basis | Ambient Bkgd. Conc. | Projected Instream Conc. | WQ Std. or GV | WQ Type | Calc. WQBEL | Basis for WQBEL | | |
| | Only 2 detections with an EEQ of 5.9 lbs/d reported, concentration data is not reported under the 2014 permit. The projected instream concentration was calculated using an estimated effluent concentration of 3.9 ug/L (using 5.9 lbs/day & design flow of 180 MGD), a multiplier of 1.0, the chronic dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from USEPA's Technical Support Document Chapter 3.3 to account for the number of samples. A metals translator of 1.003 was also applied to convert between the total and dissolved form in accordance with the USEPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation and the Action Level has been discontinued given only 2 detections with a low projected instream concentration. | | | | | | | | | | | | | | |
| Zinc, Total | lbs/d | Daily Max | 174 - AL | 120 | 11 / 49 | 170 - AL | TOGS 1.2.1 | 0 | See Dissolved Zinc | | | No Reasonable Potential | | - | Action Level |
| Zinc, Dissolved | lbs/d | Daily Max | Monitor | 150 | 29 / 32 | Monitor | 750-1.13 Monitor | 0 | 11.3 ug/L | 136 ug/L | A(A) | | | - | Discontinued |
| | The projected instream concentration was calculated using an estimated effluent concentration of 115.5 ug/L (using existing action level loading for Total Zinc & design flow of 180 MGD), a multiplier of 1.0, the acute dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from USEPA's Technical Support Document Chapter 3.3 to account for the number of samples. A metals translator of 1.022 was also applied to convert between the total and dissolved form in accordance with the USEPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. The Total Zinc Action Level will be continued given the number of detections, however monitoring of Dissolved Zinc has been discontinued. Reporting of Total Zinc concentration data has been added. | | | | | | | | | | | | | | |
| Bis (2-Ethylhexyl) Phthalate | lbs/d | Daily Max | 16.7 - AL | 5.0 (Actual Average) | 2 / 59 | 17 - AL | TOGS 1.2.1 | 0 | 0.54 ug/L | 0.60 ug/L | A(C) | No Reasonable Potential | | - | Discontinued |
| | A review of the data reported on the DMRs, indicates a maximum of 9.46 lbs/d and an actual average of 5.0 lbs/d. Concentration data is not reported under the 2014 permit. The concentration data from each DMR reported value was requested during permit development and indicated only two detections (July 2020 @ 10.8 ug/L and September 2021 @ 2.24 ug/L). The projected instream concentration was set using the maximum reported effluent concentration of 10.8 ug/L, a multiplier of 1.0, the chronic dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from USEPA's Technical Support Document Chapter 3.3 to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation and the Action Level has been discontinued given only 2 detections with a low projected instream concentration. | | | | | | | | | | | | | | |
| Additional Pollutants Reported in NY-2A Application | | | | | | | | | | | | | | | |
| Arsenic | ug/L | NY-2A | N/A | 1.5 | 1 / 0 | - | - | 0 | 0.47 | 150 | A(C) | No Reasonable Potential | | - | No Limitation |
| | Only 1 detection was reported, with a value of 1.5 ug/L. The projected instream concentration was calculated using an estimated effluent concentration of 1.5 ug/L, a multiplier of 6.2, the chronic dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from USEPA's Technical Support Document Chapter 3.3 to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation and no limitation is recommended. | | | | | | | | | | | | | | |

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| Outfall # | 002 | Description of Wastewater: Treated Combined Sewer Effluent | | | | | | | | | | | | | |
|---|-------|---|-------------------------|---|--|-------|-------|-----------------------------|--------------------------|---------------|---------|-------------------------|-----------------|---------------|------------------------------|
| | | Type of Treatment: Screening, grit removal, primary settling, conventional secondary treatment, final clarification, disinfection ¹² | | | | | | | | | | | | | |
| Effluent Parameter | Units | Averaging Period | Existing Discharge Data | | | TBELs | | Water Quality Data & WQBELs | | | | | | ML | Basis for Permit Requirement |
| | | | Permit Limit | Existing Effluent Quality ¹³ | # of Data Points Detects / Non-Detects | Limit | Basis | Ambient Bkgd. Conc. | Projected Instream Conc. | WQ Std. or GV | WQ Type | Calc. WQBEL | Basis for WQBEL | | |
| Nitrate (as N) | mg/L | NY-2A | N/A | 5.9 | 1 / 0 | - | - | 0 | 1800 ug/L | 10,000 ug/L | H(WS) | No Reasonable Potential | | No Limitation | |
| Only 1 detection was reported, with a value of 5.9 mg/L. The projected instream concentration was calculated using an estimated effluent concentration of 5.9 mg/L, a multiplier of 6.2, the HEW dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from USEPA's Technical Support Document Chapter 3.3 to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation and no limitation is recommended. | | | | | | | | | | | | | | | |
| Nitrite (as N) | mg/L | NY-2A | N/A | 0.84 | 5 / 0 | - | - | 0 | 96 ug/L | 100 ug/L | A(C) | No Reasonable Potential | - | No Limitation | |
| Only 1 detection was reported in the application, with a value of 0.34 mg/L. The Department requested collection of an additional 4 samples during permit development, resulting in a maximum concentration of 0.84 mg/L. The projected instream concentration was calculated using the maximum effluent concentration of 0.84 mg/L, a multiplier of 2.3, the chronic dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from USEPA's Technical Support Document Chapter 3.3 to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation and no limitation is recommended. | | | | | | | | | | | | | | | |
| Total Dissolved Solids (TDS) | mg/L | NY-2A | N/A | 590 | 5 / 0 | - | - | 0 | 69 | 200 | A(C) | No Reasonable Potential | | No Limitation | |
| Only 1 detection was reported in the application, with a value of 500 mg/L. The Department requested collection of an additional 4 samples during permit development, resulting in a maximum concentration of 590 mg/L. The projected instream concentration was calculated using the maximum effluent concentration of 590 mg/L, a multiplier of 2.3, the chronic dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from USEPA's Technical Support Document Chapter 3.3 to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation and no limitation is recommended. | | | | | | | | | | | | | | | |
| Other Miscellaneous NY-2A Detections | ng/L | NY-2A | N/A | See Notes | See Notes | - | - | - | - | - | - | - | - | No Limitation | |
| Additional Parameters detected in the NY-2A application sampling for which a WQS does not exist: Hardness (as CaCO3). Since a WQS does not exist, additional routine sampling is not required. However, these parameters will continue to be sampled as part of the Biennial Pollutant Scan and re-evaluated in the next permit modification. | | | | | | | | | | | | | | | |

| Emerging Contaminants – Outfall 002 | | | | | | | | | | | | | | | |
|--|---|------------------|-------------------------|---|---|---------------------------|------------|-----------------------------|--------------------------|---------------|---------|-------------------------------|-----------------|----|------------------------------|
| Effluent Parameter | Units | Averaging Period | Existing Discharge Data | | | TBELs | | Water Quality Data & WQBELs | | | | | | ML | Basis for Permit Requirement |
| | | | Permit Limit | Existing Effluent Quality ¹⁵ | # of Data Points Detects / Non-Detects | Limit | Basis | Ambient Bkgd. Conc. | Projected Instream Conc. | WQ Std. or GV | WQ Type | Calc. WQBEL | Basis for WQBEL | | |
| Notes: See Emerging Contaminant Monitoring section above. Effluent samples were analyzed for the 40 PFAS compounds and 1,4-Dioxane. | | | | | | | | | | | | | | | |
| Perfluoro-butanoic Acid (PFBA) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| Perfluoro-pentanoic Acid (PFPeA) | ng/L | Daily Max | - | 9.5 | 2/0 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| Perfluoro-hexanoic Acid (PFHxA) | ng/L | Daily Max | - | 18 | 2/0 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| Perfluoro-heptanoic Acid (PFHpA) | ng/L | Daily Max | - | 2.5 | 2/0 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| Perfluoro-octanoic Acid (PFOA) | ng/L | Daily Max | - | 9.0 Actual Max | 2/0 | 10 Action Level | BPJ MCL | - | 1.7 | 6.7 GV | H(WS) | No Reasonable Potential | TOGS 1.1.1 | - | Action Level |
| | The projected instream concentration was calculated using the maximum measured effluent concentration of 9.0 ng/L, a multiplier of 3.8, the HEW dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from USEPA's Technical Support Document Chapter 3.3 to account for the number of samples. A comparison of the projected instream concentration to the guidance value indicates no reasonable potential to cause or contribute to a water quality violation. However, due to the presence of PFOA and the need to protect downstream waters, an action level has been established at the NYSDOH Maximum Contaminant Level (MCL) for finished drinking water (10 ng/L). Discharges above the MCL would indicate the potential presence of a controllable source and the need to implement track down measures. See the Emerging Contaminant section for more information. | | | | | | | | | | | | | | |
| Perfluoro-nonanoic Acid (PFNA) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| Perfluoro-decanoic Acid (PFDA) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |

¹⁵ Existing Effluent Quality: Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)

| Emerging Contaminants – Outfall 002 | | | | | | | | | | | | | | | |
|--|---|------------------|-------------------------|---|---|---------------------------|---------|-----------------------------|--------------------------|---------------|---------|-------------------------|-----------------|----|------------------------------|
| Effluent Parameter | Units | Averaging Period | Existing Discharge Data | | | TBELs | | Water Quality Data & WQBELs | | | | | | ML | Basis for Permit Requirement |
| | | | Permit Limit | Existing Effluent Quality ¹⁵ | # of Data Points Detects / Non-Detects | Limit | Basis | Ambient Bkgd. Conc. | Projected Instream Conc. | WQ Std. or GV | WQ Type | Calc. WQBEL | Basis for WQBEL | | |
| Perfluoro-undecanoic Acid (PFUnA) | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| Perfluoro-dodecanoic Acid (PFDoA) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| Perfluoro-tridecanoic Acid (PFTiA) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| Perfluoro-tetradecanoic Acid (PFTeA) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| Perfluoro-butanesulfonic Acid (PFBS) | ng/L | Daily Max | - | 14 | 2/0 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| Perfluoro-pentanesulfonic Acid (PFPeS) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| Perfluoro-hexanesulfonic Acid (PFHxS) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| Perfluoro-heptanesulfonic Acid (PFHpS) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| Perfluoro-octanesulfonic Acid (PFOS) | ng/L | Daily Max | - | 4.4 Actual Max | 2/0 | 10 Action Level | BPJ MCL | - | 0.8 | 2.7 GV | H (WS) | No Reasonable Potential | TOGS 1.1.1 | - | Action Level |
| | The projected instream concentration was calculated using the maximum measured effluent concentration of 4.4 ng/L, a multiplier of 3.8, the HEW dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from USEPA's Technical Support Document Chapter 3.3 to account for the number of samples. A comparison of the projected instream concentration to the guidance value indicates no reasonable potential to cause or contribute to a water quality violation. However, due to the presence of PFOS and the need to protect downstream waters, an action level has been established at the NYSDOH Maximum Contaminant Level (MCL) for finished drinking water (10 ng/L). Discharges above the MCL would indicate the potential presence of a controllable source and the need to implement track down measures. See the Emerging Contaminant section for more information. | | | | | | | | | | | | | | |

Permittee: Buffalo Sewer Authority
 Facility: Bird Island Wastewater Treatment Facility
 SPDES Number: NY0028410
 USEPA Major/Class 05 Municipal

Date: October 20, 2025 v.1.21
 Permit Writer: Steve Wood
 Water Quality Reviewer: Steve Wood
 Full Technical Review

| Emerging Contaminants – Outfall 002 | | | | | | | | | | | | | | | |
|--|-------|------------------|-------------------------|---|---|-------|-------|-----------------------------|--------------------------|---------------|---------|-------------|-----------------|----|------------------------------|
| Effluent Parameter | Units | Averaging Period | Existing Discharge Data | | | TBELs | | Water Quality Data & WQBELs | | | | | | ML | Basis for Permit Requirement |
| | | | Permit Limit | Existing Effluent Quality ¹⁵ | # of Data Points Detects / Non-Detects | Limit | Basis | Ambient Bkgd. Conc. | Projected Instream Conc. | WQ Std. or GV | WQ Type | Calc. WQBEL | Basis for WQBEL | | |
| Perfluoro-nonanesulfonic Acid (PFNS) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | | |
| Perfluoro-decanesulfonic Acid (PFDS) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | | |
| Perfluoro-dodecane-sulfonic Acid (PFDoS) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | | |
| Perfluoro-octane-sulfonamide (FOSA) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | | |
| N-methyl Perfluoro-octanesulfon-amidoacetic Acid (NMeFOSAA) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | | |
| N-ethyl Perfluoro-octanesulfon-amidoacetic Acid (NEtFOSAA) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | | |
| 1H,1H,2H,2H-Fluorotelomer Sulfonic Acid (4:2 FTS) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | | |
| 1H,1H,2H,2H-Fluorotelomer Sulfonic Acid (6:2 FTS) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | | |
| 1H,1H,2H,2H-Fluorotelomer Sulfonic Acid (8:2 FTS) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | | |
| N-ethyl Perfluoro-octanesulfon- | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |

Permittee: Buffalo Sewer Authority
 Facility: Bird Island Wastewater Treatment Facility
 SPDES Number: NY0028410
 USEPA Major/Class 05 Municipal

Date: October 20, 2025 v.1.21
 Permit Writer: Steve Wood
 Water Quality Reviewer: Steve Wood
 Full Technical Review

| Emerging Contaminants – Outfall 002 | | | | | | | | | | | | | | | |
|--|--|------------------|-------------------------|---|--|-------|-------|-----------------------------|--------------------------|---------------|---------|-------------|-----------------|----|------------------------------|
| Effluent Parameter | Units | Averaging Period | Existing Discharge Data | | | TBELs | | Water Quality Data & WQBELs | | | | | | ML | Basis for Permit Requirement |
| | | | Permit Limit | Existing Effluent Quality ¹⁵ | # of Data Points Detects / Non-Detects | Limit | Basis | Ambient Bkgd. Conc. | Projected Instream Conc. | WQ Std. or GV | WQ Type | Calc. WQBEL | Basis for WQBEL | | |
| amide (NEtFOSA) | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| N-methyl Perfluoro-octanesulfonamide (NMeFOSA) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| N-methyl Perfluoro-octanesulfonamidoethanol (NMeFOSE) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| N-ethyl Perfluoro-octanesulfonamidoethanol (NEtFOSE) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic Acid (9Cl-PF3ONS) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| Hexafluoro-propylene Oxide Dimer Acid (HFPO-DA or GenX) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic Acid (11Cl-PF3OUdS) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| 4,8-Dioxa-3H-perfluorononanoic Acid (ADONA) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |

Permittee: Buffalo Sewer Authority
 Facility: Bird Island Wastewater Treatment Facility
 SPDES Number: NY0028410
 USEPA Major/Class 05 Municipal

Date: October 20, 2025 v.1.21
 Permit Writer: Steve Wood
 Water Quality Reviewer: Steve Wood
 Full Technical Review

| Emerging Contaminants – Outfall 002 | | | | | | | | | | | | | | | |
|--|--|------------------|-------------------------|---|---|-------|-------|-----------------------------|--------------------------|---------------|---------|-------------------------|-----------------|----|------------------------------|
| Effluent Parameter | Units | Averaging Period | Existing Discharge Data | | | TBELs | | Water Quality Data & WQBELs | | | | | | ML | Basis for Permit Requirement |
| | | | Permit Limit | Existing Effluent Quality ¹⁵ | # of Data Points Detects / Non-Detects | Limit | Basis | Ambient Bkgd. Conc. | Projected Instream Conc. | WQ Std. or GV | WQ Type | Calc. WQBEL | Basis for WQBEL | | |
| 3-Perfluoropropyl Propanoic Acid (3:3 FTCA) | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| 2H,2H,3H,3H-Perfluoro-octanoic Acid (5:3 FTCA) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| 3-Perfluoroheptyl Propanoic Acid (7:3 FTCA) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| Nonafluoro-3,6-dioxaheptanoic Acid (NFDHA) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| Perfluoro-4-methoxy-butanoic Acid (PFMBA) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| Perfluoro-3-methoxy-propanoic Acid (PFMPA) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| Perfluoro(2-ethoxyethane)sulfonic Acid (PFEEESA) | ng/L | Daily Max | - | No Detects | 0/2 | - | - | - | - | - | - | - | - | - | Monitor 750-1.13 |
| | Monitoring has been added to support establishment of future standards or TBELs. | | | | | | | | | | | | | | |
| 1,4-Dioxane | µg/L | Daily Max | - | 0.22 Actual Max | 2/0 | - | - | - | 0.0015 | 0.35 GV | H (WS) | No Reasonable Potential | TOGS 1.1.1 | - | No Limitation |
| | Based on available data no additional monitoring is required at this time. | | | | | | | | | | | | | | |

Outfall 01A

| Outfall # | 01A | Description of Wastewater: Untreated Combined Sewer Effluent – Headworks Bypass | | | | | | |
|---|---------|--|-------------------------|---|---|---------|------------------|------------------------------|
| | | Type of Treatment: Partial Screening Available ¹⁶ | | | | | | |
| Effluent Parameter | Units | Averaging Period | Existing Discharge Data | | | TBELs | | Basis for Permit Requirement |
| | | | Permit Limit | Existing Effluent Quality ¹⁷ | # of Data Points Detects / Non-Detects | Limit | Basis | |
| General Notes: Existing discharge data from June 2018 to June 2023 was obtained from Discharge Monitoring Reports provided by the permittee. This outfall is only utilized to bypass the WWTF in emergency situations or when necessary equipment is out of service. This is considered a CSO outfall, as bypass primarily occurs prior to the screens of the WWTF. When discharge does occur, monitoring is required. | | | | | | | | |
| Flow, Monthly Total | MGal/mo | Monthly Avg (Estimate) | Monitor | 8.33 Actual Average | 31/0 | Monitor | 750-1.13 Monitor | Monitor |
| | | October 2020 contains an outlier of 169.6 MG. Without this datapoint, monthly average is 2.95 MG. Flow will continue to be monitored for informational purposes and to calculate pollutant loadings. | | | | | | |
| 5- Day Biochemical Oxygen Demand (BOD ₅) | mg/L | Daily Max | Monitor | 119 Actual Average | 31/0 | Monitor | 750-1.13 Monitor | Monitor |
| | | BOD ₅ will continue to be monitored for informational purposes and to calculate pollutant loadings. | | | | | | |
| Oil and Grease | mg/L | Daily Max | Monitor | 14 Actual Average | 30/0 | Monitor | 750-1.13 Monitor | Monitor |
| | | Oil and Grease will continue to be monitored for informational purposes and to calculate pollutant loadings. | | | | | | |
| Solids, Settleable | mg/L | Daily Max | Monitor | 4.8 Actual Average | 31/0 | Monitor | 750-1.13 Monitor | Monitor |
| | | Settleable Solids will continue to be monitored for informational purposes and to calculate pollutant loadings. | | | | | | |
| Solids, Total Suspended | mg/L | Daily Max | Monitor | 274 Actual Average | 31/0 | Monitor | 750-1.13 Monitor | Monitor |
| | | Total Suspended Solids will continue to be monitored for informational purposes and to calculate pollutant loadings. | | | | | | |

¹⁶ Bypass can occur before or after coarse bar screening.

¹⁷ Existing Effluent Quality: Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)

Outfall 001

| Outfall # | 001 | Description of Wastewater: Partially Treated Combined Sewer Effluent | | | | | | |
|--|---|--|-------------------------|---|---|---------|------------------|------------------------------|
| | | Type of Treatment: Screening, grit removal, primary settling, disinfection ¹⁸ | | | | | | |
| Effluent Parameter | Units | Averaging Period | Existing Discharge Data | | | TBELs | | Basis for Permit Requirement |
| | | | Permit Limit | Existing Effluent Quality ¹⁹ | # of Data Points Detects / Non-Detects | Limit | Basis | |
| General Notes: Existing discharge data from June 2018 to June 2023 was obtained from Discharge Monitoring Reports provided by the permittee. This outfall is only utilized when the WWTF is operating in partial treatment mode during wet-weather events. This is considered a CSO-related bypass outfall, as discharge occurs after preliminary and primary treatment at the WWTF. When discharge does occur, monitoring is required. The discharge from this outfall is disinfected. | | | | | | | | |
| Flow, Monthly Total | MGal/mo | Monthly Avg | Monitor | 327 Actual Average | 61 / 0 | Monitor | 750-1.13 Monitor | Monitor |
| | Flow will continue to be monitored for informational purposes and to calculate pollutant loadings. | | | | | | | |
| 5- Day Biochemical Oxygen Demand (BOD ₅) | mg/L | Daily Max | Monitor | 99.7 Actual Average | 61/0 | Monitor | 750-1.13 Monitor | Monitor |
| | BOD ₅ will continue to be monitored for informational purposes and to calculate pollutant loadings. | | | | | | | |
| Solids, Total | mg/L | Daily Max | Monitor | 130 Actual Average | 61 / 0 | Monitor | 750-1.13 Monitor | Monitor |
| | Total Suspended Solids will continue to be monitored for informational purposes and to calculate pollutant loadings. | | | | | | | |
| Solids, Settleable | mg/L | Daily Max | Monitor | 2.34 Actual Average | 61/0 | Monitor | 750-1.13 Monitor | Monitor |
| | Settleable Solids will continue to be monitored for informational purposes and to calculate pollutant loadings. | | | | | | | |
| Ammonia as N | mg/L | Daily Max | Monitor | 5.34 Actual Average | 61/0 | Monitor | 750-1.13 Monitor | Monitor |
| | lbs/d | | | 2440 Actual Average | 61/0 | Monitor | 750-1.13 Monitor | Monitor |
| | Ammonia will continue to be monitored for informational purposes and to calculate pollutant loadings. | | | | | | | |
| Total Kjeldahl | mg/L | Daily Max | Monitor | 10.5 Actual Average | 61/0 | - | - | Discontinued |
| Nitrogen (TKN) | TKN was previously monitored consistent with Outfall 002, for data collection and analysis. Since TKN monitoring is no longer necessary and is being discontinued at Outfall 002, monitoring for TKN has also been discontinued at 001. | | | | | | | |

¹⁸ Treatment describes standard operational mode. Primary Bypass bypasses primary settling.

¹⁹ Existing Effluent Quality: Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)

Permittee: Buffalo Sewer Authority
 Facility: Bird Island Wastewater Treatment Facility
 SPDES Number: NY0028410
 USEPA Major/Class 05 Municipal

Date: October 20, 2025 v.1.21
 Permit Writer: Steve Wood
 Water Quality Reviewer: Steve Wood
 Full Technical Review

| Outfall # | 001 | Description of Wastewater: Partially Treated Combined Sewer Effluent | | | | | | |
|--------------------|---|---|-------------------------|---|---|---------|------------------|------------------------------|
| | | Type of Treatment: Screening, grit removal, primary settling, disinfection ¹⁸ | | | | | | |
| Effluent Parameter | Units | Averaging Period | Existing Discharge Data | | | TBELs | | Basis for Permit Requirement |
| | | | Permit Limit | Existing Effluent Quality ¹⁹ | # of Data Points Detects / Non-Detects | Limit | Basis | |
| Total | mg/L | Daily Max | Monitor | 2.07 Actual Average | 61/0 | Monitor | 750-1.13 Monitor | Monitor |
| Phosphorus | Total Phosphorus will continue to be monitored for informational purposes and to calculate pollutant loadings. | | | | | | | |
| Oil & Grease | mg/L | Daily Max | Monitor | 41.8 Actual Average | 60/0 | Monitor | 750-1.13 Monitor | Monitor |
| | Data for March 2022 unavailable. Oil & Grease will continue to be monitored for informational purposes and to calculate pollutant loadings. | | | | | | | |
| Fecal Coliform | No./ 100 ml | 30d Geo Mean | Monitor | 250,000 Actual Average | 61/0 | Monitor | 750-1.13 Monitor | Monitor |
| | No./ 100 ml | 7d Geo Mean | | 1,340,000 Actual Average | 61/0 | 400 | TOGS 1.3.3 | TBEL |
| | | Given the installation of High-Rate Disinfection technology at this outfall, a 7-day geomean limit for Fecal Coliform is being added. | | | | | | |
| Total Residual | mg/L | Daily Max | 2.0 | 1.15 Actual Average | 61/0 | 2.0 | Anti-backsliding | TBEL |
| Chlorine (TRC) | Total Residual Chlorine will continue to be limited for protection of the receiving water. | | | | | | | |

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 WLA of a USEPA-approved TMDL (6 NYCRR 750-1.11(a)(5)(ii)), if applicable. In accordance with 6 NYCRR 750-1.13(a), permittees discharging to waters which are on the list but do not yet have a TMDL developed may be required to perform additional monitoring for the parameters causing the impairment. Accurate monitoring data is needed to

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

Interstate Water Pollution Control Agencies

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

Existing Effluent Quality

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

Permit Requirements

Basis for Effluent Limitations

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

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

Anti-backsliding

Anti-backsliding requirements are specified in the CWA sections 402(o) and 303(d)(4), ECL 17-0809, and regulations at 40 CFR 122.44(l) and 6 NYCRR 750-1.10(c) and (d). Generally, the relaxation of effluent limitations in permits is prohibited unless one of the specified exceptions applies, which will be cited on a case-by-case basis in this fact sheet. Consistent with current case law²⁰ and USEPA interpretation²¹ 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.

²⁰ American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)

²¹ U.S. EPA, Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California; 65 Fed. Reg. 31682, 31704 (May 18, 2000); Proposed Water Quality Guidance for the Great Lakes System, 58 Fed. Reg. 20802, 20837 & 20981 (April 16, 1993)

Antidegradation Policy

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

Effluent Limitations

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

Technology-based Effluent Limitations (TBELs)

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

Water Quality-Based Effluent Limitations (WQBELs)

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

Mixing Zone Analyses

In accordance with TOGS 1.3.1., the Department may perform additional analysis of the mixing condition between the effluent and the receiving waterbody. Mixing zone analyses using plume dispersion modeling are conducted in accordance with the following:

“EPA Technical Support Document for Water Quality-Based Toxics Control” (March 1991); EPA Region VIII’s “Mixing Zones and Dilution Policy” (December 1994); NYSDEC TOGS 1.3.1, “Total Maximum Daily Loads and Water Quality-Based Effluent Limitations” (July 1996); “CORMIX v11.0” (2019).

Critical Flows

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

Reasonable Potential Analysis (RPA)

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

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

The Department uses modeling tools to estimate the expected concentrations of the pollutant in the receiving water and develop WQBELs. These tools were developed in part using the methodology referenced above. If the estimated concentration of the pollutant in the receiving water is expected to exceed the ambient water quality standard or guidance value (i.e. numeric interpretation of a narrative water quality standard), then there is a reasonable potential that the discharge may cause or contribute to an exceedance of any State water quality standard adopted

pursuant to NYS ECL 17-0301. If a TMDL is in place, the facility's WLA for that pollutant is applied as the WQBEL.

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

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.

Whole Effluent Toxicity (WET) Testing:

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

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

Minimum Level of Detection

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

Monitoring Requirements

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

Requirements for Combined Sewer Overflows (CSOs)

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

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

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

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

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

Other Conditions

Mercury

The multiple discharge variance (MDV) for mercury was developed in accordance with 6 NYCRR 702.17(h) "to address widespread standard or guidance value attainment issues including the presence of a ubiquitous pollutant or naturally high levels of a pollutant in a watershed." The first MDV was issued in October 2010, and subsequently revised and reissued in 2015; each subsequent iteration of the MDV is designed to build off the previous version, to make reasonable progress towards the water quality standard (WQS) of 0.7 ng/L dissolved mercury. The MDV is necessary because human-caused conditions or sources of mercury prevent attainment of the WQS and cannot be remedied (i.e., mercury is ubiquitous in New York waters at levels above the WQS and compliance with a water quality based effluent limitation (WQBEL) for mercury cannot be achieved with

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

demonstrated effluent treatment technologies). The Department has determined that the MDV is consistent with the protection of public health, safety, and welfare. During the effective period of this MDV, any increased risks to human health are mitigated by fish consumption advisories issued periodically by the NYSDOH.

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

Schedules of Compliance

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

Schedule(s) of Additional Submittals

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

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.