STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR

MELANIE LOYZIM
ACTING COMMISSIONER

January 12, 2021

Mr. Alex Buechner
City of Biddeford
P.O. Box 586
Biddeford ME, 04005
Alex.Buechner@Biddefordmaine.org

Sent via electronic mail
Delivery confirmation requested

RE: *Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0100048*
Maine Waste Discharge License (WDL) Application # W000683-5M-P-R
Proposed Draft MEPDES Permit Renewal

Dear Mr. Buechner:

Attached is a proposed draft MEPDES permit and Maine WDL which the Department proposes to issue for your facility as a final document after opportunity for your review and comment. By transmittal of this letter, you are provided with an opportunity to comment on the proposed draft permit and its special and standard conditions. If it contains errors or does not accurately reflect present or proposed conditions, please respond to this Department so that changes can be considered.

By copy of this letter, the Department is requesting comments on the proposed draft permit from various state and federal agencies and from any other parties who have notified the Department of their interest in this matter.

The comment period begins on January 12, 2021 and ends on February, 12, 2021. All comments on the proposed draft permit must be received in the Department of Environmental Protection office on or before the close of business on February 12, 2021. Failure to submit comments in a timely fashion will result in the proposed draft/license permit document being issued as drafted.

Comments in writing should be submitted to my attention at the following address:

Maine Department of Environmental Protection
Bureau of Water Quality
Division of Water Quality Management
17 State House Station
Augusta, ME 04333-0017
Aaron.A.Dumont@maine.gov

Aaron Dumont
Division of Water Quality Management
Bureau of Water Quality
Aaron.A.Dumont@maine.gov

cc: Stuart Rose, MEDEP
Lori Mitchell, MEDEP
Pam Paker, MEDEP
Mike Riley, MEDEP
Environmental Review, MEDMR
Environmental Review, MEIFW
Ellen Weitzler, USEPA
Alex Rosenberg, USEPA
Nathan Chien, USEPA
Richard Carvalho, USEPA
Shelley Puleo, USEPA
Sean Mahoney, CLF

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

CITY OF BIDDEFORD	)	MAINE POLLUTANT DISCHARGE
BIDDEFORD, YORK COUNTY, MAINE	)	ELIMINATION SYSTEM PERMIT
PUBLICALLY OWNED TREATMENT WORKS	)	AND
ME0100048	)	WASTE DISCHARGE LICENSE
W000683-5M-P-R **APPROVAL**	)	**RENEWAL**

In compliance with the applicable provisions of *Pollution Control*, 38 M.R.S. §411 – 424-B, *Water Classification Program*, 38 M.R.S. §464 – 470 and *Federal Water Pollution Control Act*, Title 33 U.S.C. § 1251, and applicable rules of the Department of Environmental Protection (DEPARTMENT), has considered the application of the CITY OF BIDDEFORD (CITY), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

On June 26, 2019, the Department accepted as complete for processing, an application from the City for the renewal of Maine Pollutant Discharge Elimination System (MEPDES) ME0100048/Waste Discharge License (WDL) W000683-5M-J-R, which was issued on June 18, 2014 for a five-year term. The 6/18/14 MEPDES permit authorized the monthly average discharge of 6.5 million gallons per day (MGD) of secondary treated municipal wastewater from a publicly owned treatment works (POTW) to the Saco River, Class SC, in Biddeford, Maine. The permit also authorized the City to discharge an unspecified quantity of untreated stormwater and sanitary wastewater via 7 combined sewer overflows (CSO) located on Bradbury Street, Western Avenue, Horrigan Court discharge to the Saco River Class B. The remainder of the CSOs located on Water Street, at Rumery's Boatyard and Lafayette Street discharge to the Saco Rive Class SC.

Since the 6/18/14 renewal the Department has issued five minor revisions. The first minor revision was issued on July 15, 2014, to modify ME0100048/W000683-5M-J-R and establish and implement an asset management program. The second minor revision was issued on May 13, 2015, to modify the monitoring and reporting requirements for nitrate, nitrogen, nitrite nitrogen and total kjehldahl nitrogen. The third minor revision was issued on August 11, 2015, to modify the reporting requirements for nitrate nitrogen and nitrite nitrogen to be reported as a sum rather than as individual parameters. The fourth minor revision was issued on March 15, 2016, to incorporate Special Conditions regarding compliance with the 2014 CWSRF Requirements. The fifth minor revision was issued on December 5, 2016, to remove a CSO project milestone in Special Condition J, *Effluent Limitations For Combined Sewer Overflows (CSO)* of MEPDES of the June 18, 2014 permit.

PERMIT SUMMARY

This permitting action is carrying forward all the terms and conditions of the previous permitting action and subsequent minor revisions except it is:

1. Increasing the monitoring requirements of Fecal coliform from seasonal to year-round, and amending the monthly average and daily maximum limits to 14 CFU/100 mL 31 CFU/100 in accordance with *Waters and Navigation*, 38 M.R.S. §465-B(3), respectively;

PERMIT SUMMARY (cont'd)

2. Reducing the monitoring frequency of Fecal coliform from 5/Weet to 3/Week. Based upon a statistical evaluation of test results for the previous five-year period;

3. Establishing a monthly average and daily maximum limits of 14 CFU/100 mL and 94 CFU/100 mL for Enterococci bacteria from April 15th – October 31st with a 3/Week monitoring frequency starting on April 15th, 2022;

4. Removing Special Conditions associated with minor revisions ME0100048/W000683-5M-K-M and ME0100048/W000683-5M-N-M.

5. Establishing a monthly average water quality-based mass limit and monitoring frequency for Ammonia;

6. Establishing a monitoring requirement for Nitrate and Nitrite (as N) sampling during the summer of 2022 (May – October) at a monitoring frequency of 2/Month.

7. Establishing a monitoring requirement for Total Kjehldahl Nitrogen (as N) sampling during the Summer of 2022 (May-October) at a monitoring frequency of 2/Month.

8. Establishing a monthly average water quality-based mass limit and monitoring frequency for Bis(2-Ethylhexyl)Phthalate.

9 Eliminates surveillance monitoring chronic limit, and reduces monitoring frequency to 1/Year; and

10. Increases surveillance monitoring analytical chemistry to 1/Quarter.

CONCLUSIONS

Based on the findings summarized in the attached Fact Sheet dated January 12, 2021, and subject to the special and standard conditions that follow, the Department makes the following CONCLUSIONS:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.

2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.

3. The provisions of the State's antidegradation policy, *Classification of Maine waters,* 38 M.R.S.§ 464(4)(F), will be met, in that:

   (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;

   (b) Where high quality waters of the State constitute an outstanding natural resource, that water quality will be maintained and protected;

CONCLUSIONS (cont'd)

(c) The standards of classification of the receiving water body are met or, where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;

(d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification that higher water quality will be maintained and protected; and

(e) Where a discharge will result in lowering the existing water quality of any waterbody, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.

4. The discharges (including the 7 CSOs) will be subject to effluent limitations that require application of best practicable treatment as defined in *Conditions of licenses*, 38 M.R.S. § 414-A(1)(D).

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ACTION

Based on the findings and conclusions as stated above, the Department APPROVES the above noted application of the CITY OF BIDDEFORD to discharge a monthly average of 6.5 MGD of secondary treated municipal wastewater to the Saco River via Outfall #001 and an unspecified quantity of untreated combined stormwater and sanitary wastewater via seven (7) CSOs in Biddeford, Maine to the Saco River (Class SB & Class SC), SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

1. *Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits*, revised July 1, 2002, copy attached.

2. The attached Special Conditions, including any effluent limitations and monitoring requirements.

3. This permit and the authorization to discharge become effective upon the date of signature below and expire at midnight five (5) years from the effective date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the authorization to discharge and the terms and conditions of this permit and all modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [*Maine Administrative Procedure Act*, 5 M.R.S. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 CMR 2(21)(A) (amended June 9, 2018)]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS _____ DAY OF _____2021.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
MELANIE LOYZIM, Acting Commissioner

Date filed with Board of Environmental Protection_____

Date of initial receipt of application: June 19, 2019
Date of application acceptance: June 26, 2019

This Order prepared by Aaron Dumont, BUREAU OF WATER QUALITY

SPECIAL CONDITIONS

A.1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge **secondary treated municipal sanitary wastewater from Outfall #001** to the Saco River at Biddeford. Such discharges are limited and must be monitored by the permittee as specified below[(1)]:

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow *[50050]*	6.5 MGD *[03]*	---	Report MGD *[03]*	---	---	---	Continuous *[99/99]*	Recorder *[RC]*
Biochemical Oxygen Demand (BOD_5) *[00310]*	1,626 lbs/day *[26]*	2,439 lbs/day *[26]*	Report lbs/day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	5/Week *[05/07]*	Composite *[24]*
BOD_5 % Removal[(2)] *[81010]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Total Suspended Solids (TSS) *[00530]*	1,626 lbs/day *[26]*	2,439 lbs/day *[26]*	Report lbs/day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	5/Week *[05/07]*	Composite *[24]*
TSS % Removal[(2)] *[81011]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Settleable Solids *[00545]*	---	---	---	---	---	0.3 ml/L *[25]*	5/Week *[05/07]*	Grab *[GR]*
Total Residual Chlorine[(3)] *[50060]*	---	---	---	0.1 mg/L *[19]*	---	0.13 mg/L *[19]*	2/Day *[02/01]*	Grab *[GR]*
Fecal Coliform Bacteria[(4)] *[31616]*	---	---	---	14/100CFU/mL *[13]*	---	31/100CFU/mL *[13]*	3/Week *[03/07]*	Grab *[GR]*
Enterococci Bacteria[(5)] *(Seasonally April 15th-October 31st Beginning 2022) [61211]*	---	---	---	14/100 CFU/mL *[13]*	---	94/100 CFU/mL *[13]*	3/Week *[3/07]*	Grab *[GR]*
pH (Std. Units) *[00400]*	---	---	---	---	---	6.0 – 9.0 SU *[12]*	1/Day *[01/01]*	Grab *[GR]*
Mercury (Total)[(6)] *[71900]*	---	---	---	14.6 ng/L *[3M]*	---	33.8 ng/L *[3M]*	1/Year *[01/YR]*	Grab *[GR]*

The italicized numeric values bracketed in the table and in subsequent text are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports.

FOOTNOTES: See Pages 8 through 11 of this permit for applicable footnotes.

SPECIAL CONDITIONS

A.1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS – OUTFALL #001 (cont'd)

The permittee is authorized to discharge **secondary treated municipal sanitary wastewater from Outfall #001** to the Saco River at Biddeford. Such discharges are limited and must be monitored by the permittee as specified below[(1)] (cont'd):

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Ammonia *[00610]*	---	916 lbs/day *[26]*	---	Report mg/L *[19]*	1/Month *[1/30]*	Grab *[GR]*
Bis (2-ethylhexyl) phthalate *[39100]*	2.97 lbs/day *[26]*	---	Report mg/L *[19]*	---	1/Month *[1/30]*	Grab *[GR]*
Nitrate + Nitrite (as N) *[00630]* (May 1,2022 – Oct. 31, 2022)	Report lbs/day *[26]*	Report lbs/day *[26]*	Report mg/L *[19]*	Report mg/L *[19]*	2/Month *[1/30]*	24-Hour Composite *[24]*
Total Kjehldahl Nitrogen (as N) *[00625]* (May 1, 2022 – Oct. 31, 2022)	Report lbs/day *[26]*	Report lbs/day *[26]*	Report mg/L *[19]*	Report mg/L *[19]*	2/Month *[1/30]*	24-Hour Composite *[24]*

The italicized numeric values bracketed in the table and in subsequent text are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports.

FOOTNOTES: See Pages 8 through 11 of this permit for applicable footnotes.

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SPECIAL CONDITIONS

A.2. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

SCREENING LEVEL TESTING

Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force or is replaced by a permit renewal containing this requirement.

Effluent Characteristic	Discharge Limitations		Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity[7] **Acute – NOEL** *Americamysis bahia* (Mysid shrimp) *[TDM3E]*	---	Report% *[23]*	1/Quarter *[01/90]*	Composite *[24]*
Chronic – NOEL *Arbacia punctulata* (Sea urchin) *[TBH3A]*	---	Report% *[23]*	1/Quarter *[01/90]*	Composite *[24]*
Analytical Chemistry[8,9] *[51477]*	---	Report ug/L *[28]*	1/Quarter *[01/90]*	Composite / Grab *[24/GR]*
Priority Pollutant[9,10] *[50008]*	---	Report ug/L *[28]*	1/Year *[01/YR]*	Composite / Grab *[24/GR]*

The italicized numeric values bracketed in the table and in subsequent text are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports.

FOOTNOTES: See Pages 8 through 11 of this permit for applicable footnotes.

SPECIAL CONDITIONS

A.3. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

SURVEILLANCE LEVEL TESTING

Beginning upon permit issuance and lasting through 24 months prior to permit expiration (Years 1, 2 & 3 of the term of the permit) and commencing again 12 months prior to permit expiration (Year 5 of the term of the permit).

Effluent Characteristic	Discharge Limitations		Minimum Monitoring Requirements	
	Monthly Average	**Daily Maximum**	**Measurement Frequency**	**Sample Type**
Whole Effluent Toxicity(7) **Acute No Observed Effect Level (A-NOEL)** *Americamysis bahia* (Mysid shrimp) *[TDA3E]*	---	Report% *[23]*	1/Year *[01/YR]*	Composite *[24]*
Chronic No Observed Effect Level (C-NOEL) Chronic – NOEL *Arbacia punctulata* (Sea urchin) *[TBH3A]*	---	Report% *[23]*	1/Year *[01/YR]*	Composite *[24]*
Analytical chemistry(8,10) *[51477]*	---	Report ug/L *[28]*	1/Quarter *[01/90]*	Composite/Grab *[24/GR]*

The italicized numeric values bracketed in the table and in subsequent text are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports.

FOOTNOTES: See Pages 8 through 11 of this permit for applicable footnotes.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

FOOTNOTES

1. **Sampling** – Influent sampling must be conducted downstream of screenings and grit removal in a wet well where the two grit channels combine. Any change in sampling location must be approved by the Department in writing. The licensee must conduct sampling and analysis in accordance with; a) methods approved by 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis must be analyzed by a laboratory certified by the State of Maine's Department of Health and Human Services for wastewater. Samples that are sent to a publicly owned treatment works (POTW) pursuant to *Waste discharge licenses*, 38 M.R.S. § 413 are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (effective December 19, 2018). Laboratory facilities that analyze compliance samples in-house are subject to the provisions and restrictions of 10−144 CMR 263. If the licensee monitors any pollutant more frequently than required by the license using test procedures approved under 40 CFR Part 136 or as specified in this license, the results of this monitoring must be included in the calculation and reporting of the data submitted in the discharge monitoring report (DMR).

2. **Percent Removal** − The permittee must achieve a minimum of 85 percent removal of both total suspended solids and biochemical oxygen demand for all flows receiving secondary treatment. The percent removal is calculated based on influent and effluent concentration values. The percent removal will be waived if the calculated percent removal is less than 85% and when the monthly average influent concentration is less than 200mg/L. For instance, when this occurs, the facility may report "*N9*" on the monthly DMR.

3. **TRC Monitoring** – Limitations and monitoring requirements are in effect any time elemental chlorine or chlorine-based compounds are utilized to disinfect the discharge(s). The permittee must utilize a USEPA-approved test method capable of bracketing the TRC limitations specified in this permitting action. Monitoring for TRC is only required when elemental chlorine or chlorine-based compounds are in use for effluent disinfection. For instances when a facility has not disinfected with chlorine-based compounds for an entire reporting period, the facility must report "N9" on the electronic DMR.

4. **Fecal coliform bacteria** – Limits apply on a year-round basis. The monthly fecal coliform average limitation is a **geometric mean** limitation and results must be calculated and reported as such.

5. **Enterococcus Bacteria Reporting** – Enterococcus bacteria limitation is a **geometric mean** and monitoring requirements are seasonal running from April 15th – October 31st. These monitoring and reporting requirement must commence on April 15th, 2022.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

6. **Mercury** – The permittee must conduct all mercury monitoring required by this permit or required to determine compliance with interim limitations established pursuant to 06-096 C.M.R. 519 in accordance with the USEPA's "clean sampling techniques" found in USEPA Method 1669, *Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels*. All mercury analysis must be conducted in accordance with USEPA Method 1631, *Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry.* Go to https://www.maine.gov/dep/water/wd/municipal_industrial/index.html and click on "Whole Effluent Toxicity, Chemistry, and Mercury Reporting Forms" for a reporting form for mercury test results. Compliance with the monthly average limitation established in Special Condition A of this permit will be based on the cumulative arithmetic mean of all mercury tests results that were conducted utilizing sampling Method 1669 and analysis Method 1631E on file with the Department for this facility.

7. **Whole effluent toxicity (WET) testing** – Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions bracketing the critical acute and chronic thresholds of 10.3% and 5.9% respectively), which provides an estimate of toxicity in terms of No Observed Effect Level, commonly referred to as NOEL or NOEC. A-NOEL is defined as the acute no observed effect level with survival as the end point. C-NOEL is defined as the chronic no observed effect level with survival, reproduction and growth as the end points. The critical acute and chronic thresholds were derived as the mathematical inverse of the applicable acute and chronic dilution factors of 9.7:1 and 17:1, respectively.

   a. **Screening level testing –** Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee must conduct screening level WET testing at a minimum frequency of 4 per year (4/Year). Acute tests must be conducted on the mysid shrimp (*Americamysis bahia*); chronic tests must be conducted on the sea urchin (*Arbacia punctulata*).

   b. **Surveillance level testing** − Beginning upon permit issuance and lasting through 24 months prior to permit expiration (Years 1, 2 & 3 of the term of the permit) and commencing again 12 months prior to permit expiration (Year 5 of the term of the permit), the permittee must conduct surveillance level WET testing at a minimum frequency of once per year (1/Year). Acute tests must be conducted on the mysid shrimp (*Americamysis bahia*). Chronic tests must be conducted on the sea urchin (*Arbacia punctulata*). Testing must be conducted in a different calendar quarter each sampling event.

   WET test results must be submitted to the Department not later than the next Discharge Monitoring Report (DMR) required by the permit, provided, however, that the permittee may review the toxicity reports for up to 10 business days of their availability before submitting them. The permittee must evaluate test results being submitted and identify to the Department possible exceedences of the critical acute and chronic water quality thresholds of 10.3% and 5.9%, respectively.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Toxicity tests must be conducted by an experienced laboratory approved by the Department. The laboratory must follow procedures as described in the following USEPA methods manuals.

a. U.S. Environmental Protection Agency. 2002. *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, 5th ed. USEPA 821-R-02-012. U.S. Environmental Protection Agency, Office of Water, Washington, D.C., October 2002 (the acute method manual);

b. U.S. Environmental Protection Agency. 2002. *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, 3rd ed. EPA 821-R-02-014. U.S. Environmental Protection Agency, Office of Water, Washington, D.C., October 2002 (the marine chronic method manual).

Results of WET tests must be reported on the "*Whole Effluent Toxicity Report Marine Waters*" form found at: https://www.maine.gov/dep/water/wd/municipal_industrial/index.html permit each time a WET test is performed. Each time a WET test is performed, the permittee must sample and analyze for the parameters in the WET Chemistry and the Analytical Chemistry sections of the Department form entitled, *Maine Department of Environmental Protection,Chemical Specific Data Report Form* form found at:https://www.maine.gov/dep/water/wd/municipal_industrial/index.html

8. **Analytical chemistry** – Refers to those pollutants listed under "Analytical Chemistry" on the form found at: https://www.maine.gov/dep/water/wd/municipal_industrial/index.html

a. **Screening-level testing** – Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee must conduct analytical chemistry testing at a minimum frequency of once per calendar quarter (1/Quarter) for four consecutive calendar quarters.

b. **Surveillance-level testing** – Beginning upon permit issuance and lasting through 24 months prior to permit expiration (Years 1, 2 & 3 of the term of the permit) and commencing again 12 months prior to permit expiration (Year 5 of the term of the permit), the permittee must conduct analytical chemistry testing at a minimum frequency of once per calendar quarter (1/Quarter).

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

9. **Priority Pollutant Testing –** Refers to those pollutants listed under "Priority Pollutants" on the form found at: https://www.maine.gov/dep/water/wd/municipal_industrial/index.html

   a. **Screening-level testing** – Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee must conduct priority pollutant testing at a minimum frequency of 1/Year calendar.

   b. **Surveillance-level testing** – Pursuant to 06-096 CMR 530(2)(D)(1) priority pollutant surveillance testing is not required for Level I facilities.

10. **Analytical chemistry and priority pollutant** – Testing must be conducted on samples collected at the same time as those collected for whole effluent toxicity tests. Priority pollutant and analytical chemistry testing must be conducted using methods that permit detection of a pollutant at existing levels in the effluent or that achieve minimum reporting levels of detection as specified by the Department.

    Test results must be submitted to the Department not later than the next DMR required by the permit, provided, however, that the permittee may review the toxicity reports for up to 10 business days of their availability before submitting them. The permittee must evaluate test results being submitted and identify to the Department, possible exceedances of the acute, chronic or human health Ambient Water Quality Criteria (AWQC) as established in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584 (effective October 9, 2005). For the purposes of DMR reporting, enter a "1" for yes, testing done this monitoring period or "N9" monitoring not required this period.

B. NARRATIVE EFFLUENT LIMITATIONS

1. The permittee must not discharge effluent that contains a visible oil sheen, foam or floating solids at any time which would impair the uses designated by the classification of the receiving waters.

2. The permittee must not discharge effluent that contains materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the uses designated by the classification of the receiving waters.

3. The permittee must not discharge effluent that imparts color, taste, turbidity, toxicity, radioactivity or other properties which cause those waters to be unsafe for the designated uses and characteristics ascribed to their classification.

4. The permittee must not discharge effluent that lowers the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

SPECIAL CONDITIONS

C. TREATMENT PLANT OPERATOR

The person who has management responsibility over the treatment facility must hold a minimum of a **Maine Grade V** biological certificate (or Registered Maine Professional Engineer) pursuant to *Sewage Treatment Operators*, 32 M.R.S. §§ 4171-4182 and *Regulations for Wastewater Operator Certification*, 06-096 CMR 531 (effective May 8, 2006). All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of the contract operator.

D. LIMITATIONS FOR INDUSTRIAL USERS

Pollutants introduced into the wastewater collection and treatment system by a non-domestic source (user) must not pass through or interfere with the operation of the treatment system. The permittee must conduct an Industrial Waste Survey (IWS) any time a new industrial user proposes to discharge within its jurisdiction; an existing user proposes to make a significant change in its discharge; or at an alternative minimum, once every permit cycle and submit the results to the Department. The IWS must identify, in terms of character and volume of pollutants, any Significant Industrial Users discharging into the POTW subject to Pretreatment Standards under section 307(b) of the federal Clean Water Act, 40 CFR Part 403 (general pretreatment regulations) or *Pretreatment Program*, 06-096 CMR 528 (last amended March 17, 2008).

E. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing on June 26, 2019; 2) the terms and conditions of this permit; and 3) only from Outfall #001 and the seven (7) CSOs listed in Special Condition K, *Combined Sewer Overflows (CSOs)* of this permit. Discharges of wastewater from any other point source(s) are not authorized under this permit, and must be reported in accordance with Standard Condition B(5), *Bypasses*, of this permit.

F. NOTIFICATION REQUIREMENT

In accordance with Standard Condition D, the permittee must notify the Department of the following:

1. Any introduction of pollutants into the wastewater collection and treatment system from an indirect discharger in a primary industrial category discharging process wastewater; and

2. Any substantial change in the volume or character of pollutants being introduced into the wastewater collection and treatment system by a source introducing pollutants to the system at the time of permit issuance. For the purposes of this section, notice regarding substantial change must include information on:

    a. the quality and quantity of wastewater introduced to the wastewater collection and treatment system; and

    b. any anticipated impact caused by the change in the quantity or quality of the wastewater to be discharged from the treatment system.

SPECIAL CONDITIONS

G. WET WEATHER MANAGEMENT PLAN

The treatment facility staff must have a current written Wet Weather Flow Management Plan to direct the staff on how to operate the facility effectively during periods of high flow. The Department acknowledges that the existing collection system may deliver flows in excess of the monthly average design capacity of the treatment plant during periods of high infiltration and rainfall.

The plan must conform to Department guidelines for such plans and must include operating procedures for a range of intensities, address solids handling procedures (including septic waste and other high strength wastes if applicable) and provide written operating and maintenance procedures during the events.

The permittee must review their plan at least annually and record any necessary changes to keep the plan up to date. The Department may require review and update of the plan as it is determined to be necessary.

H. OPERATIONS AND MAINTENANCE (O&M) PLAN

The permittee must maintain a current written comprehensive Operation & Maintenance (O&M) Plan for the facility. The plan must provide a systematic approach by which the permittee must at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.

By December 31 of each year, **or within 90 days of any process changes or minor equipment upgrades,** the permittee must evaluate and modify the O&M Plan including site plan(s) and schematic(s) for the wastewater treatment facility to ensure that it is up-to-date. The O&M Plan must be kept on-site at all times and made available to Department and USEPA personnel upon request.

Within 90 days of completion of new and or substantial upgrades of the wastewater treatment facility, the permittee must submit the updated O&M Plan to their Department inspector for review and comment.

I. DISPOSAL OF TRANSPORTED WASTES IN WASTEWATER TREATMENT FACILITY

Pursuant to this permit and *Standards for the Addition of Transported Wastes to Wastewater Treatment Facilities,* 06-096 CMR 555 (effective March 9, 2009), during the effective period of this permit, the permittee is authorized to **receive 10,000** gallons per day and **introduce** into the treatment process **a daily maximum of 6,500 gallons per day (gpd)** of transported wastes, subject to the following terms and conditions.

1. "Transported wastes" means any liquid non-hazardous waste delivered to a wastewater treatment facility by a truck or other similar conveyance that has different chemical constituents or a greater strength than the influent described on the facility's application for a waste discharge license. Such wastes may include, but are not limited to septage, industrial wastes or other wastes to which chemicals in quantities potentially harmful to the treatment facility or receiving water have been added.

SPEICIAL CONDITIONS

I. DISPOSAL OF TRANSPORTED WASTES IN WASTEWATER TREATMENT FACILITY (cont'd)

2. Of the 10,00 gpd of transported wastes authorized by this permit, the permittee may introduce into the treatment process a daily maximum of 6,500 gpd of septage wastes.

3. The character and handling of all transported wastes received must be consistent with the information and management plans provided in application materials submitted to the Department.

4. At no time must the addition of transported wastes cause or contribute to effluent quality violations. Transported wastes may not cause an upset of or pass through the treatment process or have any adverse impact on the sludge disposal practices of the wastewater treatment facility. Wastes that contain heavy metals, toxic chemicals, extreme pH, flammable or corrosive materials in concentrations harmful to the treatment operation must be refused. Odors and traffic from the handling of transported wastes may not result in adverse impacts to the surrounding community. If any adverse effects exist, the receipt or introduction of transported wastes into the treatment process or solids handling stream must be suspended until there is no further risk of adverse effects.

5. The permittee must maintain records for each load of transported wastes in a daily log which must include at a minimum the following.
   (a) The date;
   (b) The volume of transported wastes received;
   (c) The source of the transported wastes;
   (d) The person transporting the transported wastes;
   (e) The results of inspections or testing conducted;
   (f) The volumes of transported wastes added to each treatment stream; and
   (g) The information in (a) through (d) for any transported wastes refused for acceptance.
   These records must be maintained at the treatment facility for a minimum of five years.

6. The addition of transported wastes into the treatment process or solids handling stream must not cause the treatment facilities design capacity to be exceeded. If, for any reason, the treatment process or solids handling facilities become overloaded, introduction of transported wastes into the treatment process or solids handling stream must be reduced or terminated in order to eliminate the overload condition.

7. Holding tank wastewater from domestic sources to which no chemicals in quantities potentially harmful to the treatment process have been added must not be recorded as transported wastes but should be reported in the treatment facility's influent flow.

8. During wet weather events, transported wastes may be added to the treatment process or solids handling facilities only in accordance with a current high flow management plan approved by the Department that provides for full treatment of transported wastes without adverse impacts.

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SPEICIAL CONDITIONS

I. DISPOSAL OF TRANSPORTED WASTES IN WASTEWATER TREATMENT FACILITY (cont'd)

9. In consultation with the Department, chemical analysis is required prior to receiving transported wastes from new sources that are not of the same nature as wastes previously received. The analysis must be specific to the type of source and designed to identify concentrations of pollutants that may pass through, upset or otherwise interfere with the facility's operation.

10. Access to transported waste receiving facilities may be permitted only during the times specified in the application materials and under the control and supervision of the person responsible for the wastewater treatment facility or his/her designated representative.

11. The authorization in the Special Condition is subject to annual review and, with notice to the permittee and other interested parties of record, may be suspended or reduced by the Department as necessary to ensure full compliance with 06-096 CMR 555 and the terms and conditions of this permit.

J. EFFLUENT LIMITATIONS AND CONDITIONS FOR COMBINED SEWER OVERFLOWS

Pursuant to *Combined Sewer Overflow Abatement,* 06-096 CMR 570 (effective date February 5, 2000), the permittee is authorized to discharge from the following locations of CSOs (stormwater and sanitary wastewater) subject to the conditions and requirements herein.

1. CSO Locations

Outfall #	Location	Receiving Water & Class
004	Bradbury Street CSO	Saco River, Class B
005	Western Avenue CSO	Saco River, Class B
006	Horrigan Court CSO	Saco River, Class B
007	Elm Street (Route #1) CSO	Saco River, Class B
009	Water Street CSO	Saco River, Class SC
013	Rumery's Boatyard CSO	Saco River, Class SC
014	Lafayette Street CSO	Saco River, Class SC

2. Prohibited Discharges

   a. The discharge of dry weather flows is prohibited. All such discharges must be reported to the Department in accordance with Standard Condition D(1) of this permit.

   b. No discharge may occur as a result of mechanical failure, improper design or inadequate operation or maintenance.

   c. No discharges may occur at flow rates below the maximum design capacities of the wastewater treatment facility, pumping stations or sewerage system.

SPECIAL CONDITIONS

J. EFFLUENT LIMITATIONS AND CONDITIONS FOR COMBINED SEWER OVERFLOWS (cont'd)

3. Narrative Effluent Limitations

   a. The permittee must not discharge wastewater that contains a visible oil sheen, settled substances, foam, or floating solids at any time that impair the characteristics and designated uses ascribed to the classification of the receiving waters.

   b. The permittee must not discharge wastewater that contains materials in concentrations or combinations that are hazardous or toxic to aquatic life; or which would impair the usage designated by the classification of the receiving waters.

   c. The permittee must not discharge wastewater that imparts color, turbidity, toxicity, radioactivity or other properties that cause the receiving waters to be unsuitable for the designated uses and other characteristics ascribed to their class.

   d. Notwithstanding specific conditions of this permit, the effluent by itself or in combination with other discharges may not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

4. CSO Master Plan [see 06-096 CMR 570(2) and (3)]

   The permittee must implement CSO control projects in accordance with an approved CSO Master Plan and abatement schedule. The last CSO Master Plan approved by DEP was entitled *Phase II Combined Sewer Overflow Master Plan for the City of Biddeford, Maine* dated June 2008 and revised January 2009. A subsequent CSO Master Plan Update was submitted by the City on October 28, 2016 and received conditional approval, contingent upon confirming the plan's viability via hydraulic modeling.

   The plan was proven non-viable due to street level flooding predicted by the model runs. Since the plan was rejected, Biddeford is currently without an approved CSO Master Plan. The City is currently implementing several abatement activities which should have a significant impact on CSO discharge from CSO 005 and 006. The agreed upon CSO Master Plan Update, to be submitted on the schedule shown below, will provide a summary of these efforts, as well as charting a course forward for the City.

   The abatement schedule may be amended from time to time based on mutual agreements between the permittee and the Department. The permittee must notify the Department in writing prior to any proposed changes to the implementation schedule. Based on the agreement reached at our meeting in Biddeford on 10/24/19, the permittee must comply with the following schedule dates:

   On or before **June 30, 2023**, [*ICIS Code CSO10*], the permittee must complete an update to Biddeford's CSO Master Plan. The Master Plan Update must be submitted to the Department for review and approval.

SPECIAL CONDITIONS

J. EFFLUENT LIMITATIONS AND CONDITIONS FOR COMBINED SEWER OVERFLOWS (cont'd)

5. Nine Minimum Controls (NMC) [see 06-096 CMR 570(5)]

   The permittee must implement and follow the Nine Minimum Control documentation as approved by USEPA on May 29, 1997. Work performed on the Nine Minimum Controls during the year must be included in the annual *CSO Progress Report* (see below).

6. CSO Compliance Monitoring Program [see 06-096 CMR 570(6)]

   The permittee must conduct block testing or flow monitoring according to an approved *Compliance Monitoring Program* on all CSO points, as part of the CSO Master Plan. Annual flow volumes for all CSO locations must be determined by actual flow monitoring, or by estimation using a model such as USEPA's Storm Water Management Model (SWMM).

   Results must be submitted annually as part of the annual *CSO Progress Report* (see below), and must include annual precipitation, CSO volumes (actual or estimated) and any block test data required. Any abnormalities during CSO monitoring must also be reported. The results must be reported on the Department form "CSO Activity and Volumes" (**Attachment A** of this permit) or similar format and submitted electronically to the Department.

   CSO control projects that have been completed must be monitored for volume and frequency of overflow to determine the effectiveness of the project toward CSO abatement. This requirement must not apply to those areas where complete separation has been completed and CSO outfalls have been eliminated.

7. Addition of New Wastewater [see 06-096 CMR 570(8)]
   06-096 CMR 570(8) lists requirements relating to any proposed addition of wastewater to the combined sewer system. Documentation of the new wastewater additions to the system and associated mitigating measures must be included in the annual *CSO Progress Report* (see below). Reports must contain the volumes and characteristics of the wastewater added or authorized for addition and descriptions of the sewer system improvements and estimated effectiveness.

8. Annual CSO Progress Reports [see 06-096 CMR 570(7)]

   By March 1 of each year *[ICIS Code 11099]* the permittee must submit *CSO Progress Reports* covering the previous calendar year (January 1 to December 31). The CSO Progress Report must include, but is not necessarily limited to, the following topics as further described in 06-096 CMR 570: CSO abatement projects, schedule comparison, progress on inflow sources, costs, flow monitoring results, CSO activity and volumes, nine minimum controls update, sewer extensions, and new commercial or industrial flows.

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SPECIAL CONDITIONS

J. EFFLUENT LIMITATIONS AND CONDITIONS FOR COMBINED SEWER OVERFLOWS (cont'd)

The CSO Progress Reports must be completed on a standard form entitled "Annual CSO Progress Report", furnished by the Department, and submitted in electronic form, if possible, to the following address:

CSO Coordinator
Department of Environmental Protection
Bureau of Land and Water Quality
17 State House Station
Augusta, Maine 04333
e-mail: michael.s.riley@maine.gov

9. Signs

If not already installed, the permittee must install and maintain an identification sign at each CSO location as notification to the public that intermittent discharges of untreated sanitary wastewater occur. The sign must be located at or near the outfall and be easily readable by the public. The sign must be a minimum of 12" x 18" in size with white lettering against a green background and must contain the following information:

CITY OF BIDDEFORD
WET WEATHER
SEWAGE DISCHARGE
CSO # AND NAME

10. Definitions

For the purposes of this permitting action, the following terms are defined as follows:

a. Combined Sewer Overflow - a discharge of excess waste water from a municipal or quasi-municipal sewerage system that conveys both sanitary wastes and stormwater in a single pipe system and that is in direct response to a storm event or snowmelt.

b. Dry Weather Flows - flow in a sewerage system that occurs as a result of non-storm events or are caused solely by ground water infiltration.

c. Wet Weather Flows - flow in a sewerage system that occurs as a direct result of a storm event, or snowmelt in combination with dry weather flows.

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SPECIAL CONDITIONS

K. 06-096 CMR 530(2)(D)(4) STATEMENT FOR REDUCED/WAIVED TOXICS TESTING

By December 31 of each calendar year, the permittee must provide the Department with a certification describing any of the following that have occurred since the effective date of this permit ***[ICIS Code 96299]***. See **Attachment F** of the Fact Sheet for an acceptable certification form to satisfy this Special Condition.

a. Changes in the number or types of non-domestic wastes contributed directly or indirectly to the wastewater treatment works that may increase the toxicity of the discharge;

b. Changes in the operation of the treatment works that may increase the toxicity of the discharge;

c. Changes in industrial manufacturing processes contributing wastewater to the treatment works that may increase the toxicity of the discharge;

In addition, in the comments section of the certification form, the permittee must provide the Department with statements describing;

d. Changes in stormwater collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge; and

e. Increases in the type or volume of transported (hauled) wastes accepted by the facility.

The Department may require that annual testing be re-instated if it determines that there have been changes in the character of the discharge or if annual certifications described above are not submitted.

L. INDUSTRIAL PRETREATMENT PROGRAM

1. Pollutants introduced into POTWs by a non-domestic source (user) must not pass-through the publicly owned treatment works (POTW) or interfere with the operation or performance of the works.

    a. The permittee must develop and enforce specific effluent limits (local limits) or conditions (Best Management Practices) for Industrial User(s), and all other users, as appropriate, which together with appropriate changes in the POTW facilities or operation, are necessary to ensure continued compliance with the POTWs MEPDES permit or sludge use or disposal practices. Specific local limits must not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond.

    Within 180 days of the effective date of this permit, *[ICIS code PR002]* the permittee must prepare and submit a written technical evaluation to the Department analyzing the need to revise local limits. As part of this evaluation, the permittee must assess how the POTW performs with respect to influent and effluent of pollutants, water quality concerns, sludge quality, sludge processing concerns/inhibition, biomonitoring results, activated sludge inhibition, worker health and safety and collection system concerns.

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SPECIAL CONDITIONS

L. INDUSTRIAL PRETREATMENT PROGRAM (cont'd)

In preparing this evaluation, the permittee must complete the "Re-Assessment of Technically Based Local Limits" form included as **Attachment B** of this permit with the technical evaluation to assist in determining whether existing local limits need to be revised. Justifications and conclusions should be based on actual plant data if available and should be included in the report. Should the evaluation reveal the need to revise local limits, the permittee must complete the revisions within 120 days of notification by the Department and submit the revisions to the Department for approval. The permittee must carry out the local limits revisions in accordance with USEPA's document entitled, *Local Limits Development Guidance (July 2004).*

2. The permittee must implement the Industrial Pretreatment Program in accordance with the legal authorities, policies, procedures, and financial provisions described in the permittee's approved Pretreatment Program, and the General Pretreatment Regulations, found at 40 CFR 403 and *Pretreatment Program*, 06-096 CMR 528 (last amended March 17, 2008). At a minimum, the permittee must perform the following duties to properly implement the Industrial Pretreatment Program (IPP):

   a. Carry out inspection, surveillance, and monitoring procedures which will determine, independent of information supplied by the industrial user, whether the industrial user is in compliance with the Pretreatment Standards. At a minimum, all significant industrial users must be sampled and inspected at the frequency established in the approved IPP but in no case less than once per year and maintain adequate records.

   b. Issue or renew all necessary industrial user control mechanisms within 90 days of their expiration date or within 180 days after the industry has been determined to be a significant industrial user.

   c. Obtain appropriate remedies for noncompliance by an industrial user with any pretreatment standard and/or requirement.

   d. Maintain an adequate revenue structure for continued implementation of the Pretreatment Program.

   e. The permittee must provide the Department with an annual report describing the permittee's pretreatment program activities for the twelve-month period ending 60 days prior to the due date in accordance with federal regulation found at 40 CFR 403.12(i) and 06-096 CMR 528(12)(i). **The annual report *[ICIS code 53199]* must be consistent with the format described in the "MEPDES Permit Requirements For Industrial Pretreatment Annual Report" form included as Attachment C of this permit and must be submitted no later than March 1 of each calendar year.**

   f. The permittee must obtain approval from the Department prior to making any significant changes to the industrial pretreatment program in accordance with federal regulation found at 40 CFR 403.18(c) and 06-096 CMR 528(18).

SPECIAL CONDITIONS

L. INDUSTRIAL PRETREATMENT PROGRAM (cont'd)

g. The permittee must assure that applicable National Categorical Pretreatment Standards are met by all categorical industrial users of the POTW. These standards are published in the federal regulations found at 40 CFR 405-471.

h. The permittee must modify its pretreatment program to conform to all changes in the federal regulations and State rules that pertain to the implementation and enforcement of the industrial pretreatment program. **Within 180 days of the effective date of this permit,** *[ICIS code 50799]* the permittee must provide the Department in writing, proposed changes to the permittee's pretreatment program deemed necessary to assure conformity with current federal regulations and State rules. At a minimum, the permittee must address in its written submission the following areas: (1) Enforcement response plan; (2) revised sewer use ordinances; and (3) slug control evaluations. The permittee will implement these proposed changes pending the Department's approval under federal regulation 40 CFR 403.18 and 06-096 CMR 528(18). This submission is separate and distinct from any local limits analysis submission described in section 1(a) above.

M. MONITORING AND REPORTING

Electronic Reporting
NPDES Electronic Reporting, 40 C.F.R. 127, requires MEPDES permit holders to submit monitoring results obtained during the previous month on an electronic discharge monitoring report to the regulatory agency utilizing the USEPA electronic system.

Electronic Discharge Monitoring Reports (DMRs) submitted using the USEPA NetDMR system, must be:

1. Submitted by a facility authorized signatory; and
2. Submitted no later than **midnight on the 15th day of the month** following the completed reporting period.

Documentation submitted in support of the electronic DMR may be attached to the electronic DMR. Toxics reporting must be done using the DEP toxsheet reporting form. An electronic copy of the Toxsheet reporting document must be submitted to your Department compliance inspector as an attachment to an email. In addition, a hardcopy form of this sheet must be signed and submitted to your compliance inspector, or a copy attached to your NetDMR submittal will suffice. Documentation submitted electronically to the Department in support of the electronic DMR must be submitted no later than midnight on the 15th day of the month following the completed reporting period.

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SPECIAL CONDITIONS

M. MONITORING AND REPORTING (cont'd)

A signed copy of the DMR and all other reports required herein must be submitted to the Department assigned compliance inspector (unless otherwise specified) following address:

Department of Environmental Protection
Southern Maine Regional Office
Bureau of Water Quality
Division of Water Quality Management
312 Canco Road
Portland, Maine 04103

N. REPORTING DISCHARGES NOT RECEIVING SECONDARY TREATMENT

Pursuant to *Classification of Maine waters,* 38 M.R.S.A. § 464(1)(C) and *Standards for classification of estuarine and marine waters,* 38 M.R.S.A. § 465-B, which contain standards to achieve Maine's water quality goals for the designated uses of fishing, aquaculture, and propagation and harvesting of shellfish, the permittee must report all occurrences of secondary wastewater treatment system bypasses, upsets, disinfection system malfunctions, combined sewer overflows, and discharges resulting from sanitary sewer overflows, pump stations or broken sewer pipes immediately upon becoming aware of such a condition.

Pursuant to *Classification of Maine waters,* 38 M.R.S.A. § 464(1)(C) and *Standards for classification of estuarine and marine waters,* 38 M.R.S.A. § 465-B, which contain standards to achieve Maine's water quality goals for the designated uses of fishing, aquaculture, and propagation and harvesting of shellfish, the permittee must report all occurrences of secondary wastewater treatment system bypasses, upsets, disinfection system malfunctions, combined sewer overflows, and discharges resulting from sanitary sewer overflows, pump stations or broken sewer pipes immediately upon becoming aware of such a condition:

1. Name of facility/individual reporting event;
2. Contact phone number and e-mail address;
3. Location of event (physical address or description);
4. Pollution event type (for example, bypass, CSO, sewer line break);
5. Pollution event quantity (for example approximate number of gallons discharged);
6. Date and time event began;
7. Date and time event ended, or state that the event is on-going;
8. Additional comments;
9. First and last name of person reporting event; and
10. Authorization code.

The immediate reporting requirements by this Special Condition are in addition to Standard Condition D(1)(f), *Twenty-four hour reporting*, of this permit, which contains reporting requirements to the Department for conditions that may endanger health or the environment.

O. REOPENING OF PERMIT FOR MODIFICATION

In accordance with 38 M.R.S. § 414-A(5) and upon evaluation of the tests results or monitoring requirements specified in Special Conditions of this permitting action, new site specific information, or any other pertinent test results or information obtained during the term of this permit, the Department may, at any time and with notice to the permittee, modify this permit to: 1) include effluent limits necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded, (2) require additional monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

P. SEVERABILITY

In the event that any provision(s), or part thereof, of this permit is declared to be unlawful by a reviewing court, the remainder of the permit must remain in full force and effect, and must be construed and enforced in all aspects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

ATTACHMENT A

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
CSO ACTIVITY AND VOLUMES

MUNICIPALITY OR DISTRICT	MEPDES / NPDES PERMIT NO.
REPORTING YEAR	SIGNED BY:
YEARLY TOTAL PRECIPITATION INCHES	DATE:

CSO EVENT NO.	START DATE OF STORM	PRECIP. DATA		FLOW DATA (GALLONS PER DAY) OR BLOCK ACTIVITY("1")							
		TOTAL INCHES	MAX. HR. INCHES	LOCATION: NUMBER:	LOCATION: NUMBER:	LOCATION: NUMBER:	LOCATION: NUMBER:	LOCATION: NUMBER:	LOCATION: NUMBER:	EVENT OVERFLOW GALLONS	EVENT DURATION HRS
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
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16											
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20											
21											
22											
23											
24											
25											
	TOTALS										

Note 1: Flow data should be listed as gallons per day. Storms lasting more than one day should show total flow for each day.

Note 2: Block activity should be shown as a "1" if the block floated away.

ATTACHMENT B

RE-ASSESSMENT OF TECHNICALLY BASED INDUSTRIAL DISCHARGE LIMITS

Pursuant to federal regulation 40 CFR §122.21(j)(4) and Department rule ***Chapter 528,*** all Publicly Owned Treatment Works (POTWs) with approved Industrial Pretreatment Programs (IPPs) shall provide the Department with a written evaluation of the need to revise local industrial discharge limits under federal regulation 40 CFR §403.5(c)(1) and Department rule ***Chapter 528, 6.***

Below is a form designed by the U.S. Environmental Protection Agency (EPA - New England) to assist POTWs with approved IPPs in evaluating whether their existing Technically Based Local Limits (TBLLs) need to be recalculated. The form allows the permittee and Department to evaluate and compare pertinent information used in previous TBLLs calculations against present conditions at the POTW.

Please read the directions below before filling out the attached form.

ITEM I.

* In Column (1), list what your POTW's influent flow rate was when your existing TBLLs were calculated. In Column (2), list your POTW's present influent flow rate. Your current flow rate should be calculated using the POTW's average daily flow rate from the previous 12 months.

* In Column (1) list what your POTW's SIU flow rate was when your existing TBLLs were calculated. In Column (2), list your POTW's present SIU flow rate.

* In Column (1), list what dilution ratio and/or 7Q10 value was used in your previous NPDES permit. In Column (2), list what dilution ration and/or 7Q10 value is presently being used in your new/reissued MEPDES permit.

  The 7Q10 value is the lowest seven day average flow rate, in the river, over a ten year period. The 7Q10 value and/or dilution ratio used by the Department in your MEPDES permit can be found in your MEPDES permit "Fact Sheet."

* In Column (1), list the safety factor, if any, that was used when your existing TBLLs were calculated.

* In Column (1), note how your bio-solids were managed when your existing TBLLs were calculated. In Column (2), note how your POTW is presently disposing of its biosolids and how your POTW will be disposing of its biosolids in the future.

ITEM II.

* List what your existing TBLLs are - as they appear in your current Sewer Use Ordinance (SUO).

ITEM III.

* Identify how your existing TBLLs are allocated out to your industrial community. Some pollutants may be allocated differently than others, if so please explain.

ITEM IV.

* Since your existing TBLLs were calculated, identify the following in detail:

  (1) if your POTW has experienced any upsets, inhibition, interference or pass-through as a result of an industrial discharge.

  (2) if your POTW is presently violating any of its current MEPDES permit limitations - include toxicity.

ITEM V.

* Using current sampling data, list in Column (1) the average and maximum amount of pollutants (in pounds per day) received in the POTW's influent. Current sampling data is defined as data obtained over the last 24 month period.

  All influent data collected and analyzed must be in accordance with federal regulation 40 CFR §136. Sampling data collected should be analyzed using the lowest possible detection method(s), e.g. graphite furnace.

* Based on your existing TBLLs, as presented in Item II., list in Column (2) each Maximum Allowable Industrial Headworks Loading (MAIHL) value corresponding to each of the local limits derived from an applicable environmental criteria or standard, e.g. water quality, sludge, NPDES, inhibition, etc. For each pollutant, the MAIHL equals the calculated Maximum Allowable Headwork Loading (MAHL) minus the POTW's domestic loading source(s). For more information, please see p., 3-28 in EPA's *Guidance Manual on the Development and Implementation of Local Limits Under the Pretreatment Program, 12/87*.

ITEM VI.

* Using current sampling data, list in Column (1) the average and maximum amount of pollutants (in micrograms per liter) present your POTW's effluent. Current sampling data is defined as data obtained during the last 24 month period.

  All effluent data collected and analyzed must be in accordance with federal regulation 40 CFR §136. Sampling data collected should be analyzed using the lowest possible detection method(s), e.g. graphite furnace.

* List in Column (2A) what the Water Quality Standards (WQS) were (in micrograms per liter) when your TBLLs were calculated, please note what hardness value was used at that time. Hardness should be expressed in milligram per liter of Calcium Carbonate.

  List in Column (2B) the current WQSs or "Chronic Gold Book" values for each pollutant multiplied by the dilution ratio used in your new/reissued MEPDES permit. For example, with a dilution ratio of 25:1 at a hardness of 20 mg/l - Calcium Carbonate (copper's chronic WQS equals 2.99 ug/l) the chronic MEPDES permit limit for copper would equal 75 ug/l.

ITEM VII.

* In Column (1), list all pollutants (in micrograms per liter) limited in your new/reissued MEPDES permit. In Column (2), list all pollutants limited in your old/expired NPDES permit.

ITEM VIII.

* Using current sampling data, list in Column (1) the average and maximum amount of pollutants in your POTW's biosolids. Current data is defined as data obtained during the last 24 month period. Results are to be expressed as total dry weight.

  All biosolids data collected and analyzed must be in accordance with federal 40 CFR §136.

  In Column (2A), list current State and/or Federal sludge standards that your facility's biosolids must comply with. Also note how your POTW currently manages the disposal of its biosolids. If your POTW is planning on managing its biosolids differently, list in Column (2B) what your new biosolids criteria will be and method of disposal.

In general, please be sure the units reported are correct and all pertinent information is included in your evaluation. If you have any questions, please contact your pretreatment representative at the Maine Department of Environmental Protection, Bureau of Land & Water Quality, Division of Engineering, Compliance & Technical Assistance, State House Station #17, Augusta, ME. 04333. The telephone number is (207) 287-3901.

REASSESSMENT OF TECHNICALLY BASED LOCAL LIMITS (TBLLs)

POTW Name & Address _____

NPDES PERMIT # _____

Date EPA approved current TBLLs _____

Date EPA approved current Sewer Use Ordinance _____

ITEM I.

In Column (1) list the conditions that existed when your current TBLLs were calculated. In Column (2), list current conditions or expected conditions at your POTW.

	Column (1) EXISTING TBLLs	**Column (2)** PRESENT CONDITIONS
POTW Flow (MGD)		
SIU Flow (MGD)		
Dilution Ratio or 7Q10 from the NPDES and MEPDES Permit)		
Safety Factor		
Biosolids Disposal Method(s)		

ITEM II.

EXISTING TBLLs

POLLUTANT	NUMERICAL LIMIT (mg/l)	POLLUTANT	NUMERICAL LIMIT (mg/l)

ITEM III.

Note how your existing TBLLs, listed in Item II., are allocated to your Significant Industrial Users (SIUs), i.e. uniform concentration, contributory flow, mass proportioning, other. Please specify by circling. –

ITEM IV.

Has your POTW experienced any upsets, inhibition, interference or pass-through from industrial sources since your existing TBLLs were calculated?

If yes, explain _____

Has your POTW violated any of its MEPDES permit limits and/or toxicity test requirements?

If yes, explain _____

ITEM V.

Using current POTW influent sampling data fill in Column (1). In Column (2), list your Maximum Allowable Industrial Headwork Loading (MAIHL) values used to derive your TBLLs listed in Item II. In addition, please note the environmental criteria for which each MAIHL value was established, i.e. water quality, sludge, MEPDES etc.

	Column (1)		**Column (2)**	
Pollutant	Influent Data Analyses		MAIHL Values	Criteria
	Maximum (lb/day)	Average (lb/day)	(lb/day)	
Arsenic				
Cadmium				
Chromium				
Copper				
Cyanide				
Lead				
Mercury				
Nickel				
Silver				
Zinc				
Other (List)				

ITEM VI.

Using current POTW effluent sampling data, fill in Column (1). In Column (2A) list what the Water Quality Standards (Gold Book Criteria) were at the time your existing TBLLs were developed. List in Column (2B) current Gold Book values multiplied by the dilution ratio used in your new/reissued NPDES permit.

	Column (1)		**Columns (2A)**	**(2B)**
Pollutant	Effluent Data Analyses Maximum (ug/l)	Average (ug/l)	Water Quality Criteria (Gold Book) From TBLLs (ug/l)	Today (ug/l)
Arsenic				
Cadmium*				
Chromium*				
Copper*				
Cyanide				
Lead*				
Mercury				
Nickel*				
Silver				
Zinc*				
Other (List)				

*Hardness Dependent (mg/l-CaCO3)

ITEM VII.

In Column (1), identify all pollutants limited in your new/reissued MEPDES permit. In Column (2), identify all pollutants that were limited in your old/expired NPDES permit.

Column (1) NEW PERMIT		**Column (2)** OLD PERMIT	
Pollutants	Limitations (ug/l)	Pollutants	Limitations (ug/l)

ITEM VIII.

Using current POTW biosolids data, fill in Column (1). In Column (2A), list the biosolids criteria that was used at the time your existing TBLLs were calculated. If your POTW is planning on managing its biosolids differently, list in Column (2B) what your new biosolids criteria would be and method of disposal.

		Columns	
	Column (1) Biosolids Data Analyses Average (mg/kg)	**(2A)** Biosolids Criteria From TBLLs (mg/kg)	**(2B)** New (mg/kg)
Pollutant			
Arsenic			
Cadmium			
Chromium			
Copper			
Cyanide			
Lead			
Mercury			
Nickel			
Silver			
Zinc			
Molybdenum			
Selenium			
Other (List)			

ATTACHMENT C

MEPDES PERMIT REQUIREMENT
FOR
INDUSTRIAL PRETREATMENT ANNUAL REPORT

1/ A narrative description **(paragraph)** of program effectiveness including the following:

- ***present and proposed changes*** to the program
  - Funding
  - Staffing
  - Ordinances
  - Regulations
  - Statutory authority
  - Other

Our pretreatment program is very effective as indicated by the SIU compliance rate and the reduction in pollutant loading to the POTW.

The program is adequately funded and staffed to provide for annual training and completion of our regulatory responsibilities.

No changes have been made, or are proposed, to _____'s Sewer Use Ordinance. The SUO provides adequate statutory authority to enforce in Local, State and Federal courts.

2/ The **date** of the latest adoption of Local Limits and a statement as to whether the municipality is under a State or Federal compliance schedule that includes steps to be taken to revise Local Limits.

If yes, Compliance Schedule; if no, schedule not needed.

_____'s Local Limits were last adopted (by local authority) on _____ and _____ is under no State or Federal compliance schedule that includes steps to be taken to revise Local Limits.

3/ A description of actions taken to reduce the incidence of violations by SIU's;
Example: Inspections – Notifications – Information/Education

4/ A description of monitoring, sewer inspections and evaluations which were done during the past year to detect Interference and Pass Through, specifying parameters and frequencies;

Example: Evaluations/investigations as a result of Monitoring, Sewer Inspections, and Evaluations, Influent – Effluent results, Spills, Dumps, Toxicity, or Unusual events.

5/ A detailed description of all Interference and Pass Through that occurred during the past year; **[statement of: Event, Parameter, Violation, Cause, IU, POTW action, IU action, Result (see NOV #).**

_____ *experienced no events of Interference or Pass-Through in this reporting period. If "Yes" then describe.*

6/ A thorough description of all investigations into Interference and Pass-Through during the past year;
A paragraph: Violation, Problem, Steps to resolve, Result.

(same as 5/ or describe investigations.)

7/ An updated **list** of all industrial users by category (40 CFR 403.8(f)(2)(i), *indicating compliance or non-compliance* with the following:

- baseline monitoring reporting requirements for newly promulgated industries
- compliance status reporting requirements for newly promulgated industries
- periodic (semi-annual) monitoring reporting requirements
- categorical standards, and
- local limits

Example:

SIU	***New Promulgated BMR/Compliance Y/N)***	***Cat Limits Compliance (Y/N)***	***Local Limits Compliance (Y/N)***	***Semi-annual Reports Compliance (Y/N)***

8/ A summary of compliance and enforcement activities during the preceding year including a:

- **list** of SIU's inspected by the POTW (dates, compliance status),
- **list** of SIU's sampled by the POTW (dates, compliance status),

Example:
SIU Inspected Sampled/self Sampled/POTW Compliance Y/N

- **list** of SIU's to which compliance schedules were issued,
  [SIU] - Violation - Compliance - Schedule
  N/A or schedule plus Progress Reporting Dates]

- **summary list** of NOV's written to SIU's by name
  [statement],
- **summary list** of AO's written to SIU's by name
  [statement],
- **list** of criminal and/or civil suits filed by SIU,
  [usually a simple statement]
- **list** of penalty amounts obtained (by SIU) **[a statement].**

NOTE: Some items in numbers 9 & 10 may be combined in a chart, or charts. Be sure that any charts are logical, not cluttered, and don't contain an unreasonable amount of information.

Any violations should be shown separately, in summary, for each item.

9/ **List** of violating industries required to be published in a local newspaper (40 CFR 403.8(f)(2)(vii). **[Statement]**

10/ A **summary** of all pollutant analytical results for:
- Influent **[Annual average – show violations]**
- Effluent **[Annual average – show violations]**
- Sludge **[Annual average– show violations]**
- Toxicity/Bioassay **[Annual Average – show violations]**

- **comparison** of influent sampling results versus threshold inhibitory concentrations for the POTW's wastewater treatment system.
- **comparison** of effluent sampling results versus water quality standards, considering the permitted dilution factor of the POTW.

NOTE: The sampling program shall be as described below OR any similar sampling program described in the NPDES permit. - At a minimum, annual sampling and analysis of/ the influent and effluent of the POTW's wastewater treatment plant shall be conducted on the following pollutants:

Example:

	Influent	***Inhibition***	***Effluent***	***AWC***	
				Acute	***Chronic***
- Total Cadmium					
- Total Chromium					
- Total Copper					
- Total Lead					
- Total Mercury (Methods 1669 & 1631)					
- Total Nickel					
- Total Silver					
- Total Zinc					
- Total Cyanide					
- Total Arsenic					

The sampling program shall consist of one 24-hour flow-proportioned composite that is representative of the flow received by the POTW.

The composite shall consist of accurately flow-proportioned grab samples taken over a discharge day if the samples are collected manually, or shall consist of a minimum of 48 accurately flow-proportioned samples if an automatic sampler is used. Sampling and preservation shall be according to 40 CFR part 136.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
MAINE WASTE DISCHARGE LICENSE

FACT SHEET

DATE: **January 12, 2021**

PERMIT NUMBER: **ME0100048**
WASTE DISCHARGE LICENSE: **W000683-5M-P-R**

NAME AND ADDRESS OF APPLICANT:

CITY OF BIDDEFORD
P.O. BOX 586
BIDDEFORD, MAINE 04005

COUNTY: **YORK**

NAME AND ADDRESS WHERE DISCHARGE(S) OCCUR(S):

CITY OF BIDDEFORD
63 WATER STREET
BIDDEFORD, MAINE 04005

RECEIVING WATER CLASSIFICATION: **SACO RIVER/CLASS SC**

COGNIZANT OFFICIAL CONTACT INFORMATION:

Alex Buechner
207-282-1350
Alex.buechner@biddefordmaine.org

1. APPLICATION SUMMARY

a. Application: On June 26, 2019, the Department of Environmental Protection accepted as complete for processing, an application from the City of Biddeford for the renewal of Maine Pollutant Discharge Elimination System (MEPDES) ME0100048/Waste Discharge License (WDL) W000683-5M-J-R, which was issued on June 18, 2014 for a five-year term. The 6/18/14 MEPDES permit authorized the monthly average discharge of 6.5 million gallons per day (MGD) of secondary treated municipal wastewater from a publicly owned treatment works (POTW) to the Saco River, Class SC, in Biddeford, Maine. The permit also authorized the City to discharge an unspecified quantity of untreated stormwater and sanitary wastewater via 7 combined sewer overflows (CSO) located on Bradbury Street, Western Avenue, Horrigan Court discharge to the Saco River Class B. The remainder of the CSOs located on Water Street, at Rumery's Boatyard and Lafayette Street discharge to the Saco Rive Class SC.

Since the 6/18/14 renewal the Department has issued five minor revisions. The first minor revision was issued on July 15, 2014, to modify ME0100048/W000683-5M-J-R and establish and implement an asset management program. The second minor revision was issued on May 13, 2015, to modify the monitoring and reporting requirements for nitrate, nitrogen, nitrite nitrogen and total kjehldahl nitrogen. The third minor revision was issued on August 11, 2015, to modify the reporting requirements for nitrate nitrogen and nitrite nitrogen to be reported as a sum rather than as individual parameters.

1. APPLICATION SUMMARY (cont'd)

The fourth minor revision was issued on December 5, 2016, to remove a CSO project milestone in Special Condition J, Effluent Limitations For Combined Sewer Overflows (CSO) of MEPDES of the June 18, 2014 permit. The fourth minor revision was issued on December 5, 2016, to remove a CSO project milestone in Special Condition J, *Effluent Limitations For Combined Sewer Overflows (CSO)* of MEPDES of the June 18, 2014 permit.

2. PERMIT SUMMARY

a. Terms and Conditions: This permitting action is carrying forward all the terms and conditions of the previous permitting action and subsequent minor revisions except it is:

1. Increasing the monitoring requirements of Fecal coliform from seasonal to year-round, and amending the monthly average and daily maximum limits to 14 CFU/100 mL 31 CFU/100 in accordance with *Waters and Navigation,* 38 M.R.S. §465-B(3), respectively;

2. Reducing the monitoring frequency of Fecal coliform from 5/Weet to 3/Week. Based upon a statistical evaluation of test results for the previous five-year period;

3. Establishing a monthly average and daily maximum limits of 14 CFU/100 mL and 94 CFU/100 mL for Enterococci bacteria from April 15th – October 31st with a 3/Week monitoring frequency starting on April 15th, 2022;

4. Removing Special Conditions associated with minor revisions ME0100048/W000683-5M-K-M and ME0100048/W000683-5M-N-M.

5. Establishing a monthly average water quality-based mass limit and monitoring frequency for Ammonia;

6. Establishing a monitoring requirement for Nitrate and Nitrite (as N) sampling during the summer of 2022 (May – October) at a monitoring frequency of 2/Month.

7. Establishing a monitoring requirement for Total Kjehldahl Nitrogen (as N) sampling during the summer of 2022 (May-October) at a monitoring frequency of 2/Month.

8. Establishing a monthly average water quality-based mass limit and monitoring frequency for Bis(2-Ethylhexyl)Phthalate.

9 Eliminates surveillance monitoring chronic limit, and reduces monitoring frequency to 1/Year; and

10. Increases surveillance monitoring analytical chemistry to 1/Quarter.

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2. PERMIT SUMMARY (cont'd)

b. History: This section provides a summary of significant licensing actions and milestones that have been completed for the City of Biddeford:

April 22, 1994 – The United States Environmental Protection Agency (USEPA) issued an Administrative Order to the City (No. 94-12) that required development of a draft facilities plan and schedule for upgrading the treatment plant [including, if necessary, treatment capacity expansion and/or addition of advanced treatment] and relocating the outfall.

September 30, 1996 – The USEPA issued National Pollution Discharge Elimination System (NPDES) permit ME0100048 for a five-year term.

August 4, 1997 – The Department issued WDL W000683-47-C-R for a five-year term. The WDL contained two tiers of limitations that took into consideration a treatment plant upgrade and relocation of the outfall structure.

May 4, 1998 – The USEPA issued a minor modification to the 9/30/96 NPDES permit to clarify that future limitations and monitoring requirements became effective after relocation of the outfall structure.

June 7, 2000 – The Department administratively modified WDL W000683-47-C-R by establishing interim average and maximum concentration limits for the discharge of mercury.

January 12, 2001 – The Department received authorization from the USEPA to administer the NPDES permitting program in Maine, excluding areas of special interest to Maine Indian Tribes. From this point forward, the program has been referred to as the Maine Pollutant Discharge Elimination System (MEPDES) program, and MEPDES permit ME0100048 has been utilized for this facility.

October 21, 2001 – The Department administratively modified the 8/4/97 WDL by requiring the City of Biddeford to begin disinfecting the discharge from the wastewater treatment facility on a year-round basis.

June 25, 2003 – The Department issued combination MEPDES permit ME0100048/WDL W000683-5M-E-R for a five-year term.

January 22, 2009 – The Department reviewed and approved a CSO Master Plan and abatement schedule entitled *Phase II Combined Sewer Overflow Master Plan for the City of Biddeford, Maine* dated June 2008 and revised January 2009.

May 27, 2009 – The Department issued combination MEPDES permit ME0100048/WDL W000683-5M-F-R for a five-year term.

December 21, 2010 – The Department issued permit modification ME0100048/WDL W000683-5M-G-M to incorporate Special Conditions to establish and implement an Asset Management Program, establish a repair and replacement reserve account and conduct a process energy audit.

February 6, 2012 – The Department issued permit modification ME0100048/WDL W000683-5M-H-M to incorporate the average and maximum concentration limits for total mercury.

2. PERMIT SUMMARY (cont'd)

September 5, 2013 – The Department issued permit modification ME0100048/WDL W000683-5M-I-M to remove the monthly average limitations, monitoring requirements, reporting requirements and schedule of compliance for inorganic arsenic and total arsenic.

June 18, 2014 – The Department issued combination MEPDES permit ME0100048/WDL W000683-5M-J-R for a five-year term.

July 15, 2014 – The Department issued minor revision ME0100048/W000683-5M-K-M to incorporate Special Conditions regarding compliance with the 2010 Clean Water State Revolving Fund (CWSRF) requirements (Asset Management Principal Forgiveness).

May 13, 2015 – The Department issued minor revision ME0100048/WDL W000683-5M-L-M to modify the monitoring requirements for nitrate nitrogen, nitrite nitrogen and total kjehldahl nitrogen in ME0100048/WDL W000683-5M-J-R.

August 11, 2015 – The Department issued minor revision ME0100048/WDL W000682-5M-M-M to modify the reporting requirements for nitrate nitrogen and nitrite nitrogen in minor revision ME0100048/WDL W000683-5M-L-M.

March 15, 2016 – The Department issued minor revision ME0100048/WDL W000683-5M-N-M to incorporate Special Conditions regarding compliance with the 2014 CWSRF Requirements.

December 5, 2016 – The Department issued minor revision ME0100048/WDL W000683-5M-O-M to remove a CSO project milestone in Special Condition J, *Effluent Limitations for Combined Sewer Overflows (CSOs)* found in ME0100048/WDL W000683-5M-J-R.

June 19, 2019 – The City submitted a General Application to the Department for renewal of the June 18, 2014 MEPDES permit/WDL. The application was accepted for processing on June 26, 2019, and was assigned MEPDES ME0100048/WDL W000683-5M-P-R.

c. Source Description: The wastewater treatment facility was originally constructed and went on-line in 1962 and currently serves a population of approximately 15,000 users. The treatment facility receives sanitary wastewater generated by residential, commercial, and industrial users. There are 15 industries and 13 significant industrial users (SIUs) and 2 categorical industrial user (CIU) for which pretreatment of their wastewater is required and monitored by the Department via industrial pretreatment requirements as established in Special Condition L, Industrial Pretreatment Program, of this permitting action.

The City's sanitary sewer collection system consists of approximately thirty-nine (39) miles of piping with twenty-three (23) pump stations. Four (4) of the pump stations are equipped with on-site back-up power and the remaining nineteen (19) stations are served by portable generators. All but one (1) station is equipped with Supervisory Control and Data Acquisition (SCADA) systems that are transmitted to the Public Works Department of the City as well as the wastewater treatment plant. The sanitary collection system is estimated to be 33% separated from the stormwater collection system and 67% combined with the stormwater collection system.

2. PERMIT SUMMARY (cont'd)

As a result, the permittee has identified seven combined sewer overflow (CSO) points in the collection system which are monitored via Special Condition J, *Combined Sewer Overflows (CSOs)*, in this permitting action. It is noted that since issuance of the previous permitting action, the City has successfully conducted a number of sewer upgrade and separation projects resulting in the elimination of two CSOs (#003 to Thatcher Brook and #008 to the Saco River). With the elimination of CSO #003 the facility no longer discharges to Thatcher Brook. The City is currently monitoring the collection system to determine the effectiveness of these projects.

The facility is authorized to receive up to 26,500 gallons of transported waste with a daily maximum of 6,500 gallons per day of septage from local septage haulers. The facility is limited to introducing 6,500 gpd into the wastewater treatment process on any given day. The City has made significant changes to their sludge handling process and has requested and has been authorized in this permit renewal to hold and meter a maximum daily volume of 10,000 gallons of transported waste that will be conveyed directly into solids dewatering process. The City submitted a copy their Septage Management Plan (revised January 2019) that has been reviewed and approved by the Department. A map showing the location of the treatment facility is included as Fact Sheet **Attachment A**.

d. Wastewater Treatment: The facility located at 63 Water Street in Biddeford provides secondary biological treatment of wastewater utilizing the activated sludge process. Since the 2009 permit renewal the facility has made several improvements some of which include; continued sewer separation work, replacement of the sludge belt presses with rotary screw presses, installation of a sludge thickener, taking the Biofilter offline and replacing sludge pumps and blowers.

The wastewater entering the treatment facility receives primary treatment via screening and grit removal. Screenings and grit are removed at the headworks by means of an automatic climbing rake and grit screw apparatus, respectively.

The wastewater is conveyed straight from the primary treatment to two separate aeration basins with fine bubble diffused aeration. Clarification of the wastewater is achieved by two circular secondary clarifiers each measuring 85 feet in diameter. It is noted that until 2012 a dual stage activated biofilter system (ABF) consisting of a fixed film biotower process was utilized but is currently offline. Secondary effluent is disinfected with sodium hypochlorite in a serpentine chlorine contact chamber and dechlorinated with sodium bisulfate prior to being discharged to the Saco River through a steel outfall pipe measuring 30 inches in diameter that extends out into the Saco River approximately 350 feet. The last 136 feet of the outfall pipe contains elements of the diffuser placed parallel to and at the edge of the river channel. The diffuser consists of a steel pipe measuring 24 inches in diameter with seven (7) angled ports, each 12 inches in diameter spaced 20 feet on-center. The diffuser is located approximately 15 feet below the mean low water line.

In the previous permit it was noted that CSO #001 could still be utilized in the event of an emergency and could discharge during extreme high tides. It is noted that CSO #001 has been permanently sealed and can no longer discharge secondary treated wastewaters or untreated combined stormwater and sanitary wastewater.

Sludge dewatering is accomplished by means of a rotary screw press. Dewatered sludge is trucked off-site to a solid waste facility. A process flow diagram submitted by the permittee is included as Fact Sheet **Attachment B**.

3. CONDITIONS OF PERMIT

Conditions of licenses, 38 M.R.S. § 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, 38 M.R.S. § 420 and 06-096 CMR 530 require the regulation of toxic substances not to exceed levels set forth in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584 (last amended February 16, 2020), and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

4. RECEIVING WATER QUALITY STANDARDS

Classification of estuarine and marine waters, 38 M.R.S. § 469(8)(E)(2) classifies the tidewaters of the Saco River as a Class SC water. *Standards for classification of estuarine and marine waters*, 38 M.R.S. § 465-B(3) describes the standards for classification of Class SC waterways.

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine 2016 Integrated Water Quality Monitoring and Assessment Report (Report), prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists the Saco River Estuary in Biddeford as, "Category 4-A: Estuarine and Marine Waters with Impaired Use Other than Mercury, TMDL Completed." 9/28/2009: Recreational use impairments now Category 4-A due to approval of statewide bacteria TMDL. Also in Category 5-A for DO.

"Category 5-A: Estuarine and Marine Waters Impaired by Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required)." Also listed in Category 4-A(b) and 5-B-1(a) for elevated fecals. Further data collection required. Sources: Municipal discharges, CSOs.

"Category 5-B-1(a): Estuarine and Marine Waters Impaired for Bacteria Only – TMDL Required." Shellfish harvesting closure status prohibited. The Maine Department of Marine Resources (MEDMR) closes shellfish harvesting areas if there are known sources of discharges with unacceptable bacteria levels (thresholds established in the National Shellfish Sanitation Program) or maintains shellfish harvesting closure areas due to lack of updated information regarding ambient water quality conditions and current shoreline surveys. In addition, the MEDMR prohibits shellfish harvesting in the immediate vicinity of all wastewater treatment outfall pipes as a precautionary measure in the event of a failure in the treatment plant's disinfection system.

Thus, shellfish harvesting area #10 is closed to the harvesting of shellfish due the location of the City's wastewater treatment plant outfall. The shellfish closure area can be found at http://www.maine.gov/dmr/shellfish-sanitation-management/closures/pollution.html

Category 5-D*: Estuarine and Marine Waters Impaired by Legacy Pollutants*. All estuarine and marine waters capable of supporting American lobster are listed in Category 5-D, partially supporting fishing ("shellfish" consumption) due to elevated levels of polychlorinated biphenyls (PCBs) and other persistent, bioaccumulating substances in lobster tomalley.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

a. Flow: The previous permitting action established, and this permitting action is carrying forward, a monthly average discharge flow limit of 6.5 MGD based on the design capacity for the treatment facility, and a daily maximum discharge flow reporting requirement.

The Department reviewed 66 Discharge Monitoring Reports (DMRs) that were submitted for the period June 2014 – January 2020. A review of data indicates the following:

Flow (n=66)

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly Average	6.5	1.18– 6.00	2.7
Daily Maximum	Report	1.78 – 13.01	6.2

b. Dilution Factors:

06-096 CMR 530(4)(A)(2)(a) states that, *"For discharges to the ocean, dilution must be calculated as near-field or initial dilution, or that dilution available as the effluent plume rises from the point of discharge to its trapping level, at mean low water level and slack tide for the acute exposure analysis, and at mean tide for the chronic exposure analysis using appropriate models determined by the Department such as MERGE, CORMIX or another predictive model."* With a permitted flow limitation of 6.5 MGD and the location and configuration of the outfall structure, the Department has established dilution factors as follow:

Acute = 9.7:1 Chronic = 17:1 Harmonic mean[1] = 51:1

c. Biochemical Oxygen Demand (BOD_5) and Total Suspended Solids (TSS): The previous permitting action established, and this permitting action is carrying forward, monthly average and weekly average technology-based concentration limits of 30 mg/L and 45 mg/L, respectively, for BOD_5 and TSS based on the secondary treatment requirements specified at *Effluent Guidelines and Standards*, 06-096 CMR 525(3)(III) (effective January 12, 2001), and a daily maximum concentration limit of 50 mg/L, which is based on a Department best professional judgment of best practicable treatment for secondary treated wastewater. The technology-based monthly average and weekly average mass limits of 1,626 lbs./day and 2,439 lbs./day, respectively, established in the previous permitting action for BOD_5 and TSS are based on the monthly average flow design criterion of 6.5MGD and the applicable concentration limits, and are also being carried forward in this permitting action. This permitting action is carrying forward a requirement for a minimum of 85% removal of BOD_5 & TSS pursuant to 06-096 CMR 525(3)(III)(a&b)(3).

A requirement to achieve 85% removal at all times at facilities with combined sewers is not attainable due to the complexity of the sewer systems and the highly variable influent concentration. The Department is carrying forward a waiver on the percent removal requirement when influent strength is less than 200 mg/L for facilities with combined sewers.

[1] The harmonic mean dilution factor is approximated by multiplying the chronic dilution factor by three (3). This multiplying factor is based on guidelines for estimation of human health dilution presented in the U.S. EPA publication, *"Technical Support Document for Water Quality-Based Toxics Control"* (Office of Water; EPA/505/2-90-001, page 88), and represents an estimation of harmonic mean flow on which human health dilutions are based in a riverine 7Q10 flow situation.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

The Department reviewed 66 DMRs that were submitted for the period June 2014 – January 2020 for BOD_5 a review of data indicates the following:

BOD_5 mass (n=66)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	1,626	81 – 474	201
Weekly Average	2,439	91 – 983	339
Daily Maximum	Report	94 – 3,825	860

BOD_5 concentration (n=66)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	30	4.4 – 13.0	8.3
Weekly Average	45	5.7 – 23.0	11.1
Daily Maximum	50	7.0 – 48.0	20.4

The Department reviewed 66 DMRs that were submitted for the period June 2014 – January 2020 for TSS. It is noted that the daily maximum TSS concentration limit of 50 mg/L was exceeded on December 2014 (63 mg/L), and on January 2016 (72 mg/L). A review of data indicates the following:

TSS mass (n=66)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	1,626	72 – 679	202
Weekly Average	2,439	79 – 1,727	391
Daily Maximum	Report	112 – 5,813	1108

TSS concentration (n=66)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	30	5.0 – 13.0	7.5
Weekly Average	45	5.8 – 24.0	10.6
Daily Maximum	50	7.80 – 72.0	22.0

d. Settleable Solids: The previous permitting action established, and this permitting action is carrying forward, a technology-based daily maximum concentration limit of 0.3 ml/L for settleable solids, which is considered a best practicable treatment limitation for secondary treated wastewater.

The Department reviewed 55 DMRs that were submitted for the period June 2014 – January 2020. It is noted that the daily maximum settleable solids concentration limit of 0.3 mg/L was exceeded in July 31, 2018 (1.0 mg/L). A review of data indicates the following:

Settleable solids concentration (n=66)

Value	Limit (ml/L)	Range (ml/L)	Average (ml/L)
Daily Maximum	0.3	0.01 – 1.0	0.125

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

e. Fecal Coliform Bacteria – The previous permitting action established a seasonal monthly average and daily maximum concentration limits of 15 colonies/100 ml and 50 colonies/100 ml for Fecal coliform bacteria with a monitoring frequency of 5/Week. This permitting action is establishing a year-round monthly average and daily maximum concentration limits of 14 colonies/100 ml and 31 colonies/100 ml, which is consistent with the National Shellfish Sanitation Program.

Minimum monitoring frequency requirements in MEPDES permits are prescribed by 06-096 CMR Chapter 523(5)(i). The USEPA has published guidance entitled, *Interim Guidance for Performance Based Reductions of NPDES Permit Monitoring Frequencies* (USEPA Guidance April 1996). In addition, the Department has supplemented the EPA guidance with its own guidance entitled, *Performance Based Reduction of Monitoring Frequencies - Modification of EPA Guidance Released April 1996* (Maine DEP May 22, 2014). Both documents are being utilized to evaluate the compliance history for each parameter regulated by the previous permit to determine if a reduction in the monitoring frequencies is justified.

Although EPA's 1996 Guidance recommends evaluation of the most current two-years of effluent data for a parameter, the Department is considering 60 months of data (June 2014 – January 2020). The previous permitting action established a minimum monitoring frequency of five times per week for fecal coliform bacteria. A review of the fecal coliform bacteria monitoring data indicates the ratios (expressed in percent) of the monthly average limit can be calculated as 10% respectively. According to Table I of the EPA Guidance and Department Guidance, a 5/Week monitoring frequency can be reduced to 1/Week. However, the Department has determined that a reduction in the minimum monitoring frequency to 1/Week is not sufficient to assess compliance. Therefore, this permitting action is establishing a 3/Week monitoring frequency for Fecal coliform bacteria

The Department reviewed 66 DMRs that were submitted for the period June 2014 – January 2020. It is noted that the daily maximum concentration limit of 15 colonies/100 ml was exceeded several times during this time frame. A review of data indicates the following:

Fecal coliform bacteria (n=66)

Value	Limit (col/100 ml)	Range (col/100 ml)	Mean (col/100 ml)
Monthly Average	15	1.0 – 3.20	1.6
Daily Maximum	50	2.0 – 2,420.0	69

f. Enterococcus Bacteria: This permitting action is establishing a monitoring requirement and monthly average limit of 8 colony forming units (CFU)/100 ml and a daily maximum of 94 CFU/100 ml for enterococcus bacteria based on current Maine criteria found in *Waters and Navigation,* 38 M.R.S. §465-B(3). In addition to fecal coliform limits to protect the designated use of "propagation and harvesting of shellfish", it is appropriate to require end-of-pipe limits for enterococcus bacteria, based on current Maine criteria, to protect the designated use of "recreation in and on the water" on a seasonal basis starting on April 15th, 2022. The seasonal reporting period will be April 15th through October 31st starting on April 15, 2022. A 3/Week monitoring requirement is also being established in this permitting action.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

g. Total Residual Chlorine (TRC): The previous permitting action established technology-based monthly average and water quality-based daily maximum concentration limits of 0.1 mg/L and 0.13 mg/L, respectively, for TRC. Limitations on TRC are specified to ensure that ambient water quality standards are maintained and that BPT technology is being applied to the discharge. Department permitting actions impose the more stringent of either a water quality-based or BPT-based limit. With dilution factors as determined above, end-of-pipe (EOP) water quality-based concentration thresholds for TRC may be calculated as follows:

Acute (A) Criterion	Chronic (C) Criterion	A & C Dilution Factors	Calculated Acute Threshold	Chronic Threshold
0.013 mg/L	0.0075 mg/L	9.7:1(A) 17:1 (C)	0.13 mg/L	0.1 mg/L

The Department has established a daily maximum BPT limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine-based compounds. For facilities that need to dechlorinate the discharge in order to meet water quality-based thresholds, the Department has established daily maximum and monthly average BPT limits of 0.3 mg/L and 0.1 mg/L, respectively. The City dechlorinates the effluent prior to discharge in order to achieve compliance with the water quality-based thresholds.

The calculated acute water quality-based threshold of 0.13 mg/L is more stringent than the daily maximum technology-based standard of 0.3 mg/L and is therefore being carried forward in this permitting action. The monthly average technology-based standard of 0.1 mg/L is more stringent than the calculated chronic water quality-based threshold of 0.13 mg/L and is therefore being carried forward in this permitting action.

The Department reviewed 66 DMRs that were submitted for the period June 2014 – January 2020. It is noted that the daily maximum total residual chlorine concentration limit of 0.13 mg/L was exceeded three times on August 31, 2016 (0.21 mg/L), October 31, 2016 (0.17), and on January 31, 2019 (0.46). A review of data indicates the following:

Total residual chlorine (n=66)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	0.1	0.01 – 0.03	0.01
Daily Maximum	0.13	0.01 – 0.46	0.05

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6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

h. pH: The previous permitting action established, and this permitting action is carrying forward, a technology-based pH limit of 6.0 – 9.0 standard units (SU), which is based on 06-096 CMR 525(3)(III), and a minimum monitoring frequency requirement of once per day.

The Department reviewed 55 DMRs that were submitted for the period June 2014 – January 2020. It is noted that the daily minimum pH limit of 6.0 SU was exceeded on October 31, 2014 (5.96 SU), September 30, 2015 (5.85 SU), October 31, 2016 (5.62 SU), November 30, 2016 (5.9 SU), December 31, 2016 (5.68 SU), June 30, 2019 (5.95 SU), and October 31, 2019 (5.71 SU). A review of data indicates the following:

pH (n=66)

Value	Limit (SU)	Minimum (SU)	Maximum (SU)
Range	6.0 – 9.0	5.62	7.24

i. Mercury: Pursuant to *Certain deposits and discharges prohibited*, 38 M.R.S. § 420 and *Waste discharge licenses*, 38 M.R.S. § 413 and *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001), the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying WDL

W000683-47-C-R by establishing interim monthly average and daily maximum effluent concentration limits of 14.6 parts per trillion (ppt) and 33.8 ppt, respectively, and a minimum monitoring frequency requirement of four (4) tests per year for mercury. It is noted the limitations have been incorporated into Special Condition A, *Effluent Limitations And Monitoring Requirements*, of this permit.

38 M.R.S. § 420(1-B)(B)(1) provides that a facility is not in violation of the AWQC for mercury if the facility is in compliance with an interim discharge limit established by the Department. A review of the Department's data base for the period January 10, 2000 through July 9, 2018 indicates the permittee has been in compliance with the interim limits for mercury as results have been reported as follows:

Mercury (n=77)

Value	Limit (ng/L)	Range (ng/L)	Mean (ng/L)
Average	14.6	1.83 – 40.6	6.64
Daily Maximum	33.8		

The Department issued a minor revision on February 6, 2012, to the October 12, 2011, permit thereby revising the minimum monitoring frequency requirement from twice per year to once per year given the permittee has maintained at least 5 years of mercury testing data. Pursuant to 38 M.R.S. § 420(1-B)(F), this permitting action is carrying forward the 1/Year monitoring frequency established in the February 6, 2012, permit modification.

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6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

j. Nitrogen: The USEPA requested the Department evaluate the reasonable potential for the discharge of total nitrogen to cause or contribute to non-attainment of applicable water quality standards in marine waters, namely dissolved oxygen (DO) and marine life support. The permittee conducted monthly nitrogen testing on its discharge from June-October of 2015. June data were incompletely reported and therefore are not used in the calculation of the mean effluent value. July-October monthly values resulted in a mean total nitrogen value of 6.3 mg/L. For reasonable potential evaluations, the Department considers 6.3 mg/L to be representative of total nitrogen discharge levels from the Biddeford facility.

As of the date of this permitting action, the State of Maine has not promulgated numeric ambient water quality criteria for total nitrogen. According to several studies in USEPA's Region 1, numeric total nitrogen criteria have been established for relatively few estuaries, but the criteria that have been set typically fall between 0.35 mg/L and 0.50 mg/L to protect marine life using dissolved oxygen as the indicator. While the thresholds are site-specific, nitrogen thresholds set for the protection of eelgrass habitat range from 0.30 mg/L to 0.39 mg/L. Based on studies in USEPA's Region 1 and the Department's best professional judgment of thresholds that are protective of Maine water quality standards, the Department is utilizing a threshold of 0.45 mg/L for the protection of aquatic life in marine waters using dissolved oxygen as the indicator, and 0.32 mg/L for the protection of aquatic life using eelgrass as the indicator.

Two known surveys have been completed within the Saco River estuary to document presence/absence of eelgrass. The 1970's Timson (Maine Geological Survey) Coastal Marine Geological Environments information referenced in other Maine marine discharge permits is not being utilized for this permit due to deficiencies in the aerial imagery and groundtruthing methods used for eelgrass delineation. The eelgrass surveys considered in this permit were conducted in 1995 and 2002 by the Maine Department of Marine Resources, and documented eelgrass presence no closer than the mouth of the Saco River estuary, approximately 7 km downstream. Based on the considerable distance between the Biddeford outfalls and historically mapped eelgrass, as well as the likely inhospitable low salinity of the upper Saco River estuary to eelgrass survival, the use of 0.45 mg/L as a threshold value for dissolved oxygen as the indicator is appropriate for this estuary.

The upper Saco River estuary is bounded by dams surrounding Factory Island, the downtowns of Biddeford and Saco, and the Biddeford and Saco municipal wastewater facilities. Downstream of the wastewater discharge points, the shallow estuary winds sinuously through marshes and is bounded by residential development on the shores. The federal navigation channel, moorage areas, and a maneuvering basin are dredged periodically, and as recently as winter 2018-2019. Discrete ambient data collected on a single date each during 2001, 2004 and 2011 indicate an upper Saco River estuary that experiences variable salinity based on river flow and tide stage, pH reflective of freshwater and marine influence, and low chlorophyll *a* values (0.52-3.8 µg/L) in the water column. Although few Saco River estuary water quality data exist based on work conducted under an approved quality management plan, available data indicate attainment with the dissolved oxygen criterion for Class SC waters.

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6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

With the exception of ammonia, nitrogen is not acutely toxic; thus, the Department is considering a far-field dilution to be more appropriate when evaluating impacts of total nitrogen to the marine environment.

The Department and external partners have been collecting ambient total nitrogen data along Maine's coast. To avoid capturing Biddeford's municipal nitrogen load influence on upper Saco River estuary ambient water concentrations, the Department utilized data from surface water data collected at two Southern Maine, upper estuary sites located in riverine dominated systems and similarly influenced by other point source discharges and moderate upland development. The two sites are located just below Head of Tide on the Mousam River (Kennebunk) and Presumpscot River (Falmouth/Portland). Data were generated during June-September 2013 and 2017 sampling on the Mousam River and May-October 2007, 2008, 2011, 2012, 2017 and 2018 on the Presumpscot River. Based on data from these two sites, the Department calculated a mean background concentration of 0.41 mg/L (n = 72), which will be used as a representative value for the upper Saco River estuary in the vicinity of the Biddeford and Saco municipal outfalls.

The Saco River estuary is approximately 4 miles long, from head of tide to open ocean. Estuarine systems of this particular nature typically have a naturally occurring gradient of higher to lower nutrient concentrations as you progress toward the open ocean. This naturally occurring gradient is attributable in large part to the very complex hydraulic nature of longer and more confined estuaries. Just as with nutrient concentrations, there is a significant hydraulic energy gradient in estuaries of relatively low to very high energy as you progress toward the open ocean. This hydraulic energy gradient results in ever increasing degrees of mixing/dilution the further down the estuary you progress. The full range of this gradient is expected to result in dilutions of approximately 20:1 in the immediate vicinity of the Biddeford and Saco outfalls, to greater than 200:1 at the mouth of the Saco River estuary.

Based on the estimated ambient background nitrogen concentration of 0.41 mg/l, and the fact that the Biddeford and Saco discharges are located in the uppermost portion of the estuary; it is reasonable to expect that there will be regular excursions above the 0.45 mg/l threshold value until dilutions are significantly increased in the lower portion of the estuary. Presently, there is no knowledge of any specific nitrogen related water quality problems in the Saco River estuary. Additionally, both the Biddeford and Saco treatment plants already appear to be achieving optimal nitrogen removal rates. Base on this knowledge, no specific nitrogen limits are proposed at the present time.

Further biological study of the Saco River estuary is necessary to better inform the potential for nitrogen limits. Additional nitrogen testing of the effluent is included in this permitting action and is scheduled for the Summer monitoring season (May-October) of 2021 so as to coincide with monitoring that will be by the City of Saco.

k. Whole Effluent Toxicity (WET) and Chemical-Specific Testing:
38 M.R.S. § 414-A and 38 M.R.S. § 420 prohibit the discharge of effluents containing substances in amounts that would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA. 06-096 CMR 530 sets forth effluent monitoring requirements and procedures to establish safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected, and narrative and numeric water quality criteria are met.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

06-096 CMR 584 sets forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

WET, priority pollutant and analytical chemistry testing, as required by 06-096 CMR 530, is included in this permit in order to characterize the effluent. WET monitoring is required to assess and protect against impacts upon water quality and designated uses caused by the aggregate effect of the discharge on specific aquatic organisms. Acute and chronic WET tests are performed on the mysid shrimp *(Americamysis bahia)* and the sea urchin *(Arbacia punctulata)*. Chemical-specific monitoring is required to assess the levels of individual toxic pollutants in the discharge, comparing each pollutant to acute, chronic, and human health water quality criteria. Priority pollutant testing refers to the analysis for levels of priority pollutants listed under "Priority Pollutants" on the form on the form found at: https://www.maine.gov/dep/water/wd/municipal_industrial/index.html

> 06-096 CMR 530(2)(A) specifies the dischargers subject to the rule as:
>
> All licensed dischargers of industrial process wastewater or domestic wastes discharging to surface waters of the State must meet the testing requirements of this section. Dischargers of other types of wastewater are subject to this subsection when and if the Department determines that toxicity of effluents may have reasonable potential to cause or contribute to exceedances of narrative or numerical water quality criteria.

The City discharges domestic (sanitary) wastewater to surface waters and is therefore subject to the testing requirements of the toxics rule.

06-096 CMR 530(2)(B) categorizes discharges subject to the toxics rule into one of four levels (Level I through IV). The four categories for dischargers are as follows:

Level I	Chronic dilution factor of <20:1
Level II	Chronic dilution factor of ≥20:1 but <100:1.
Level III	Chronic dilution factor ≥100:1 but <500:1 or >500:1 and Q ≥1.0 MGD
Level IV	Chronic dilution factor >500:1 and Q ≤1.0 MGD

Based on the Chapter 530 criteria, the permittee's facility falls into the Level I frequency category as the facility has a chronic dilution factor >100:1 but <500:1 or >500:1 and Q >1.0 MGD. 06-096 530(2)(D)(1) specifies that routine screening and surveillance level testing requirements are as follows:

Screening level testing

Level	WET Testing	Priority pollutant testing	Analytical chemistry
I	4 per year	1 per year	4 per year

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Surveillance level testing

Level	WET Testing	Priority pollutant testing	Analytical chemistry
I	1 per year	None required	4 per year

This permit provides for reconsideration of effluent limits and monitoring schedules after evaluation of toxicity testing results. The monitoring schedule includes consideration of results currently on file, the nature of the wastewater, existing treatment, and receiving water characteristics.

l. Whole Effluent Toxicity (WET) Evaluation: 06-096 CMR 530(3)(E) states:

> For effluent monitoring data and the variability of the pollutant in the effluent**,** the Department must apply the statistical approach in Section 3.3.2 and Table 3-2 of USEPA's "Technical Support Document for Water Quality-Based Toxics Control" (USEPA Publication 505/2-90-001, March, 1991, EPA, Office of Water, Washington, D.C.) to data to determine whether water-quality based effluent limits must be included in a waste discharge license. Where it is determined through this approach that a discharge contains pollutants or WET at levels that have a reasonable potential to cause or contribute to an exceedance of water quality criteria, appropriate water quality-based limits must be established in any licensing action.

On January 22, 2020, the Department conducted a statistical evaluation on the most recent 60 months of WET test results on file with the Department for the Town in accordance with the statistical approach outlined above. The 1/22/20 statistical evaluation indicates that none of the results had a reasonable potential to exceed the acute or chronic water quality threshold. See **Attachment C** of this Fact Sheet for a summary of the WET test results.

Based on the provisions of 06-096 CMR 530 and Department best professional judgment, this permitting action is establishing reduced surveillance level WET testing requirements for this facility. Special Condition G. 06-096 CMR 530(2)(D)(4) Statement for Reduced/Waived Toxics Testing of this Permit explains the statement required by the discharger to reduce WET testing.

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6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

m. Analytical Chemistry & Priority Pollutant Testing Evaluation:

06-096 CMR 530(4)(C) states:

> The background concentration of specific chemicals must be included in all calculations using the following procedures. The Department may publish and periodically update a list of default background concentrations for specific pollutants on a regional, watershed or statewide basis. In doing so, the Department must use data collected from reference sites that are measured at points not significantly affected by point and non-point discharges and best calculated to accurately represent ambient water quality conditions. The Department must use the same general methods as those in section 4(D) to determine background concentrations. For pollutants not listed by the Department, an assumed concentration of 10% of the applicable water quality criteria must be used in calculations.

06-096 CMR 530(3)(D) states, "Where the need for effluent limits has been determined, limits derived from acute water quality criteria must be expressed as daily maximum values. Limits derived from chronic or human health criteria must be expressed as monthly average values."

Chemical specific evaluation

06-096 CMR 530(3)(E) states, "Where it is determined through [the statistical approach referred to in USEPA's Technical Support Document for Water Quality-Based Toxics Control] that a discharge contains pollutants or WET at levels that have a reasonable potential to cause or contribute to an exceedance of water quality criteria, appropriate water quality-based limits must be established in any licensing action."

As with WET test results, the Department conducted a statistical evaluation on January 22, 2020, for the most current 60 months of analytical chemistry and priority pollutant test results on file. The Department conducted a statistical evaluation on 1/22/2020 based on the most current 60 months of analytical chemistry and priority pollutant test results on file. The evaluation conducted on 1/22/20 indicates that ammonia had reasonable potential (RP) to exceed the chronic ambient water quality thresholds on multiple dates. See **Attachment D** of this Fact Sheet for the individual test results.

For Ammonia the permittee had 1 test results in excess of the 11,000 ug/L, which has the potential to exceed the chronic AWQC for ammonia based on the following calculation:

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6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Ammonia

06-096 CMR 530(3)(D) states, "Where the need for effluent limits has been determined, limits derived from acute water quality criteria must be expressed as daily maximum values. Limits derived from chronic or human health criteria must be expressed as monthly average values." With a permitted flow of 6.5 MGD, the monthly average mass limits and calculated EOP concentrations are as follows:

Effluent Concentration = 11,000 ug/L or 11 mg/L
Chronic AWQC = 1.1 mg/L or 1,100 ug/L (based on T=20°C, pH=8.0 S.U., salinity 20 ppt.)
Chronic dilution factor = 17:1

EOP concentration = [Dilution factor x 0.90 x AWQC] + [0.10 x AWQC]
EOP concentration = [17 x 0.90 x 1.1 mg/L] + [0.10 x 1.1 mg/L] = 16.9 mg/L
EOP mass limit: = (16.9 mg/L)(8.34)(6.5 MGD) = 916 lbs./day

PARAMETER	CALCULATED EOP CONCENTRATION	DAILY MAXIMUM MASS LIMIT
Ammonia	16.9 mg/L	916 lbs/day

06-096 CMR 530 does not establish specific monitoring frequencies for parameters that exceed or have a reasonable potential to exceed the AWQC. This permitting action is establishing a monitoring frequency for ammonia based on best professional judgement. Based on the historic test results that indicate that ammonia levels have the potential to exceed the AWQC year-round, this permitting action is establishing a year-round 1/month monitoring and reporting requirement.

Bis(2-Ethylhexyl)Phthalate

The statistical evaluation conducted on January 22, 2020 indicates that Bis(2-Ethylhexyl)Phthalate exceeded the Human Health Criteria (HHC) Criteria 7/18/2017. See **Attachment D** of this Fact Sheet for the individual test results.

In accordance with 06-096 CMR 530(3)(C) the Department must establish appropriate discharge prohibitions, effluent limits and monitoring requirements in waste discharge licenses if a discharge contains pollutants that are or may be discharged at levels that cause, have reasonable potential to cause, or contribute to an ambient excursion in excess of a numeric or narrative water quality criteria or that may impair existing or designated uses. The licensee must also control whole effluent toxicity (WET) when discharges cause, have a reasonable potential to cause, or contribute to an ambient excursion above the narrative water quality criteria. In determining if effluent limits are required, the Department must consider all information on file and effluent testing conducted during the preceding 60 months. However, testing done in the performance of a Toxicity Reduction Evaluation (TRE) approved by the Department may be excluded from such evaluations.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Given:
HH AWQC (organisms only) = 1.19 ug/L (based on T=25°C, pH=7.0 S.U., salinity 20 ppt.)
Harmonic Mean = 51:1

06-096 CMR 530(3)(D) states, "Where the need for effluent limits has been determined, limits derived from acute water quality criteria must be expressed as daily maximum values. Limits derived from chronic or human health criteria must be expressed as monthly average values." With a permitted flow of 6.5 MGD, the monthly average

EOP concentration = [Dilution factor x 0.90 x AWQC] + [0.10 x AWQC]
EOP concentration = [51 x 0.90 x 1.19 ug/L] + [0.10 x 1.19 ug/L] = 54.74 ug/L
EOP mas limit: = $\frac{(54.74 \text{ ug/L})(8.34)(6.5 \text{ MGD})}{1{,}000 \text{ ug/mg}}$ = 2.97 lbs./day

PARAMETER	CALCULATED EOP CONCENTRATION	MONTHLY AVERAGE MASS LIMIT
Bis 2	55 mg/L	2.97 lbs./day

As for the remaining chemical specific parameters tested to date, none of the test results in the 60-month evaluation period exceed or have a reasonable potential to exceed applicable acute, chronic or human health AWQC.

7. COMBINED SEWER OVERFLOWS

This permit does not contain effluent limitations on the individual CSO outfalls listed in the table below.

Outfall #	Location	Receiving Water & Class
004	Bradbury Street CSO	Saco River, Class B
005	Western Avenue CSO	Saco River, Class B
006	Horrigan Court CSO	Saco River, Class B
007	Elm Street (Route #1) CSO	Saco River, Class B
009	Water Street CSO	Saco River, Class SC
013	Rumery's Boatyard CSO	Saco River, Class SC
014	Lafayette Street CSO	Saco River, Class SC

Combined Sewer Overflow Abatement 06-096 CMR 570 (last amended February 8, 1978) states that for discharges from overflows from combined municipal storm and sanitary sewer systems, the requirement of "best practicable treatment" specified in 38 M.R.S. 414-A(1)(D) may be met by agreement with the discharger, as a condition of its permit, through development of a plan within a time period specified by the Department. A subsequent CSO Master Plan Update was submitted by the City on October 28, 2016 and received conditional approval, contingent upon confirming the plan's viability via hydraulic modeling.

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7. COMBINED SEWER OVERFLOWS (cont'd)

The City has been actively implementing the recommendations of the Master Plan and to date has significantly reduced the volume of untreated combined sewer overflows to the receiving water. Special Condition K, *Effluent Limitations and Conditions For Combined Sewer Overflows*, of the permit contains a schedule of compliance for items in the most current up-to-date abatement plan which must be completed.

The Department acknowledges that the elimination of the seven remaining CSOs in the collection system of sanitary wastewater is a costly, long-term project. As the Biddeford treatment facility and the sewer collection system are upgraded and maintained in accordance with the CSO Master Plan and Nine Minimum Controls, there should be reductions in the frequency and volume of CSO activities and in the wastewater receiving primary treatment only at the treatment plant, and, over time, improvement in the quality of the wastewater discharged to the receiving waters.

8. PRETREATMENT

The permittee is required to administer a pretreatment program based on the authority granted under Federal regulations 40 CFR Part 122.44(j), 40 CFR Part 403, section 307 of the Federal Water Pollution Control Act (Clean Water Act), and *Pretreatment Program*, 06-096 CMR 528 (amended March 17, 2008). The permittee's pretreatment program received USEPA approval on July 19, 1985, and as a result, appropriate pretreatment program requirements were incorporated into the previous National Pollutant Discharge Elimination System (NPDES) permit that were consistent with that approval and federal pretreatment regulations in effect when the permit was issued. The State of Maine has been authorized by the USEPA to administer the federal pretreatment program as part of receiving authorization to administer the NPDES program.

The permit contains a condition for industrial pretreatment (see Special Condition M) pursuant to 40 CFR Part 403 and 06-096 Code of Maine Rules chapter 528 Pretreatment Program. Conditions for pretreatment have been in place at Biddeford since at least the 2003 permit cycle. Annual reports are required pursuant to 40 CFR Part 403.12(i), and Chapter 528 Section 12(i), which contain information describing the effluent from industrial sources discharging to the facility. As of 2013 there are 15 regulated Industrial Users (IUs) in the Biddeford Pretreatment Program; AVX Tantalum (CIU), Fiber Materials, Floatation Technologies, Intermat, Interstate Brands, Journal Tribune, Maine Energy Recovery Company, Maine Textiles International, METSO Paper, Prescott Metal, Praxair (CIU), SMMC, Target, Volk Packaging, White Star Laundry. These IUs run analyses and submit reports to the City a minimum of twice a year (or more often), and the City runs an independent analysis & carries out a facility inspection once a year. In addition, the State Pretreatment Coordinator conducts either a Pretreatment Audit (Insp-G) or a Pretreatment Compliance Inspection (Insp-P) of the Biddeford Pretreatment Program at a frequency of approximately once a year. In Biddeford Local Limits have been technically derived for BOD, TSS, pH, ammonia nitrogen, arsenic, cadmium, chromium, copper, cyanide, lead, mercury, nickel, silver, zinc, molybdenum, and selenium.

The individual IU permits contain limits for site-specific relevant contaminants. Additionally, the City submits an Annual Pretreatment Report to the State Pretreatment Coordinator summarizing the year's compliance and enforcement activities. The Biddeford MEPDES permit periodically requires effluent testing for a suite of additional pollutants (analytical chemistry), priority pollutants and whole effluent toxicity (WET testing). The Fact Sheet discusses the results of statistical evaluations conducted in accordance with USEPA's Technical Support Document for Water Quality-Based Toxics Control.

8. PRETREATMENT (cont'd)

Upon issuance of this permit, the permittee is obligated to modify (if applicable) its pretreatment program to be consistent with current federal regulations and State rules. Those activities that the permittee must address include, but are not limited to, the following: (1) develop and enforce Department-approved specific effluent limits (technically-based local limits - last approved by the USEPA on May 13, 1999; (2) revise the local sewer-use ordinance or regulation, as appropriate, to be consistent with federal regulations and State rules; (3) develop an enforcement response plan; (4) implement a slug control evaluation program; (5) track significant non-compliance for industrial users; and (6) establish a definition of and track significant industrial users. These requirements are necessary to ensure continued compliance with the POTWs MEPDES permit and its sludge use or disposal practices.

In addition to the requirements described above, this permit requires that **within 180 days of the effective date of this permit,** the permittee must submit to the Department in writing, a description of proposed changes to permittee's pretreatment program deemed necessary to assure conformity with current federal and State pretreatment regulations and rules, respectively. These requirements are included in the permit to ensure that the pretreatment program is consistent and up-to-date with all pretreatment requirements in effect. **By March 1st of each calendar year,** the permittee must submit a pretreatment annual report detailing the activities of the program for the twelve-month period ending 60 days prior to the due date.

9. DISPOSAL OF SEPTAGE WASTE IN WASTEWATER TREATMENT FACILITY

The City has applied for, and pursuant to *Standards for the Addition of Transported Wastes to Waste Water Treatment Facilities,* 06-096 CMR 555 (last amended February 5, 2009), and the City's written septage management plan, this permitting action authorizes the City to receive and introduce into the treatment process or solids handling stream up to a daily maximum of 6,500 GPD of transported wastes (septage wastes). See Special Condition I of the permit.

10. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

As permitted, the Department has determined the existing water uses will be maintained and protected and the discharge will not cause or contribute to the failure of the water body to meet standards for Class SC classification.

11. PUBLIC COMMENTS

Public notice of this application was made in the *Journal Tribune* newspaper on or about June 14, 2019. The Department receives public comments on an application until the date a final agency action is taken on the application. Those persons receiving copies of draft permits must have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to *Application Processing Procedures for Waste Discharge Licenses,* 06-096 CMR 522 (effective January 12, 2001).

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12. DEPARTMENT CONTACTS

Additional information concerning this permitting action may be obtained from, and written comments sent to:

Aaron Dumont
Bureau of Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 287-1939
e-mail: Aaron.A.Dumont@maine.gov

13. RESPONSE TO COMMENTS

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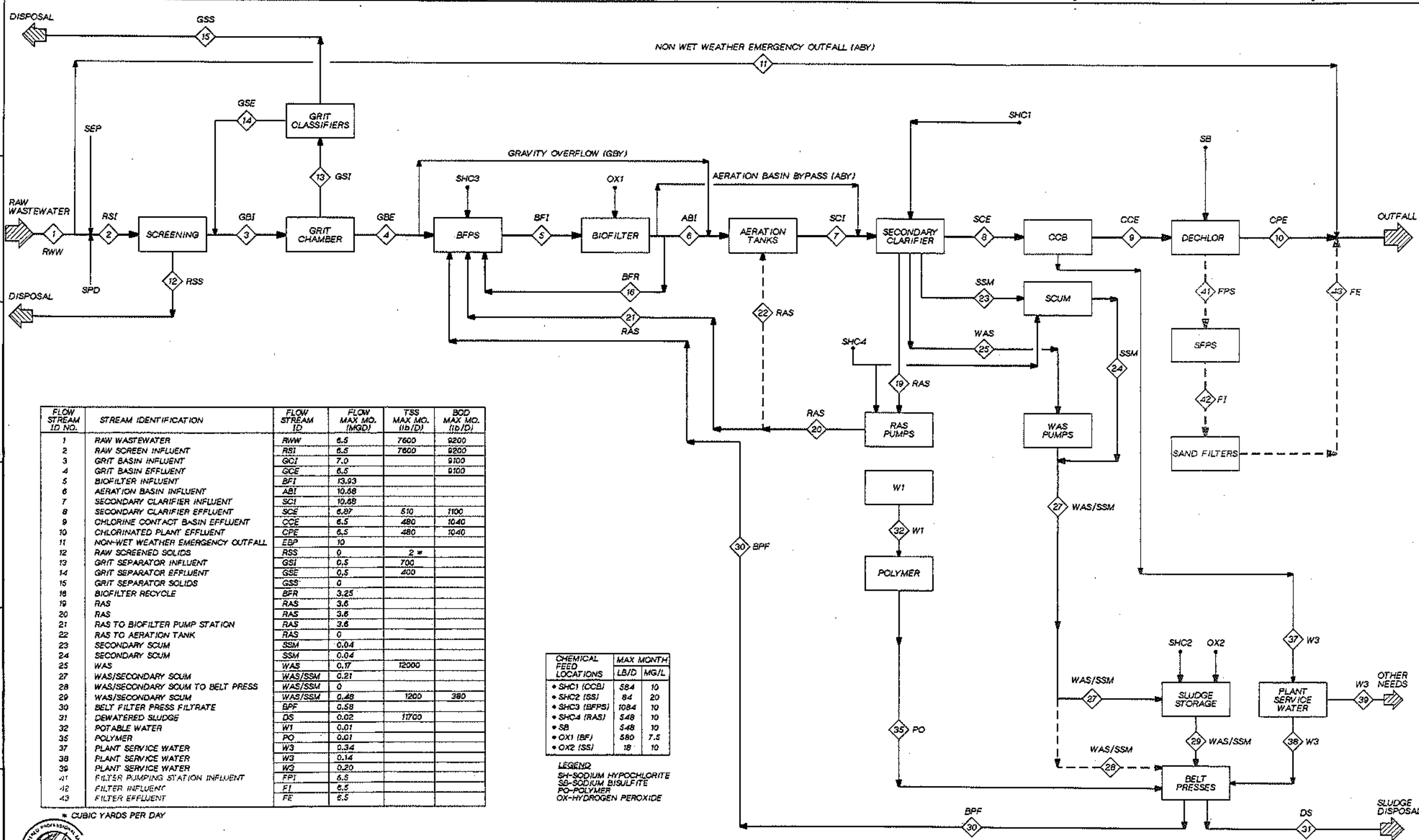
ATTACHMENT A


63 Water St
© 2020 Google
Google Earth
1998
43°29'29.61" N 70°26'51.36" W elev 38 ft eye alt 800 ft

ATTACHMENT B



FLOW STREAM ID NO.	STREAM IDENTIFICATION	FLOW STREAM ID	FLOW MAX MO. (MGD)	TSS MAX MO. (lb/D)	BOD MAX MO. (lb/D)
1	RAW WASTEWATER	RWW	6.5	7600	9200
2	RAW SCREEN INFLUENT	RSI	6.5	7600	9200
3	GRIT BASIN INFLUENT	GCI	7.0		9100
4	GRIT BASIN EFFLUENT	GCE	6.5		9100
5	BIOFILTER INFLUENT	BFI	13.93		
6	AERATION BASIN INFLUENT	ABI	10.68		
7	SECONDARY CLARIFIER INFLUENT	SCI	10.68		
8	SECONDARY CLARIFIER EFFLUENT	SCE	6.87	510	1100
9	CHLORINE CONTACT BASIN EFFLUENT	CCE	6.5	480	1040
10	CHLORINATED PLANT EFFLUENT	CPE	6.5	480	1040
11	NON-WET WEATHER EMERGENCY OUTFALL	EBP	10		
12	RAW SCREENED SOLIDS	RSS	0	2 *	
13	GRIT SEPARATOR INFLUENT	GSI	0.5	700	
14	GRIT SEPARATOR EFFLUENT	GSE	0.5	400	
15	GRIT SEPARATOR SOLIDS	GSS	0		
16	BIOFILTER RECYCLE	BFR	3.25		
19	RAS	RAS	3.6		
20	RAS	RAS	3.6		
21	RAS TO BIOFILTER PUMP STATION	RAS	3.6		
22	RAS TO AERATION TANK	RAS	0		
23	SECONDARY SCUM	SSM	0.04		
24	SECONDARY SCUM	SSM	0.04		
25	WAS	WAS	0.17	12000	
27	WAS/SECONDARY SCUM	WAS/SSM	0.21		
28	WAS/SECONDARY SCUM TO BELT PRESS	WAS/SSM	0		
29	WAS/SECONDARY SCUM	WAS/SSM	0.48	1200	380
30	BELT FILTER PRESS FILTRATE	BPF	0.58		
31	DEWATERED SLUDGE	DS	0.02	11700	
32	POTABLE WATER	W1	0.01		
35	POLYMER	PO	0.01		
37	PLANT SERVICE WATER	W3	0.34		
38	PLANT SERVICE WATER	W3	0.14		
39	PLANT SERVICE WATER	W3	0.20		
41	FILTER PUMPING STATION INFLUENT	FPI	6.5		
42	FILTER INFLUENT	FI	6.5		
43	FILTER EFFLUENT	FE	6.5		

* CUBIC YARDS PER DAY

CHEMICAL FEED LOCATIONS	MAX MONTH	
	LB/D	MG/L
• SHC1 (CCB)	584	10
• SHC2 (SS)	84	20
• SHC3 (BFPS)	1084	10
• SHC4 (RAS)	548	10
• SB	548	10
• OX1 (BF)	580	7.5
• OX2 (SS)	18	10

LEGEND
SH-SODIUM HYPOCHLORITE
SB-SODIUM BISULFITE
PO-POLYMER
OX-HYDROGEN PEROXIDE

R. L. HOOK 19/4/96

State of Maine Temporary Certificate Number 8-1996

CH2M HILL

DSGN M. WILSON
DR S. KORCSMAROS
CHK
APVD R. HOOK

NO.	DATE	REVISION	BY	APVD

BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

WASTEWATER TREATMENT PLANT EXPANSION TO 10 MGD AND UPGRADES BIDDEFORD, MAINE

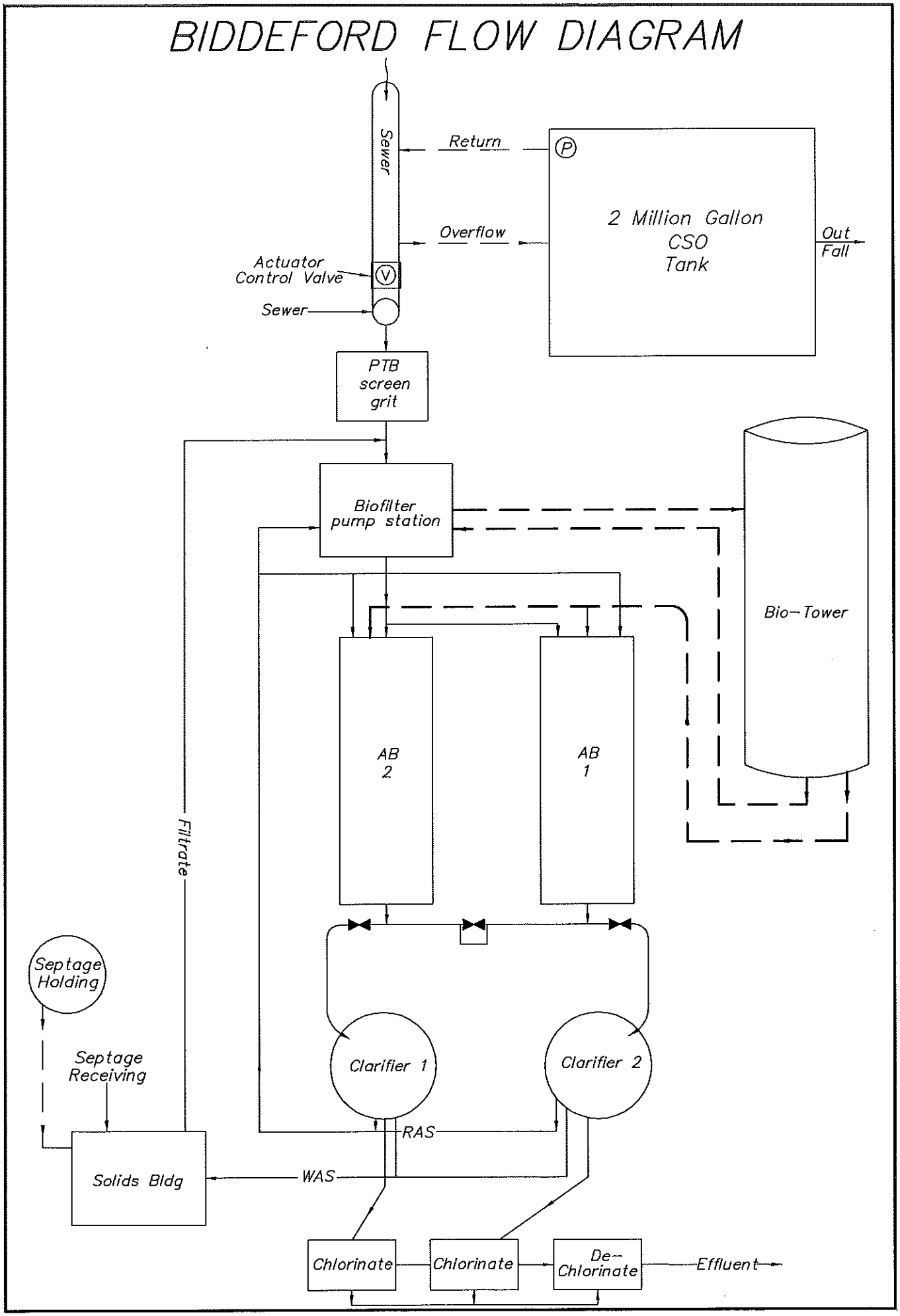
GENERAL
MASS BALANCE AND PROCESS FLOW DIAGRAM

SHEET 13
DWG NO. G-13
DATE OCT 1995
PROJ NO. 105749.B1

18-SEP-1995 13:29:46 5749g012.dlv

BID DOCUMENTS

BIDDEFORD FLOW DIAGRAM



ATTACHMENT C

FACILITY WET EVALUATION REPORT

Facility: BIDDEFORD WWTP **Permit Number:** ME0100048 **Report Date:** 1/22/2020

Receiving Water: SACO RIVER **Rapidmix:** Y

Diluition Factors: 1/4 Acute: N/A Acute: 9.700 Chronic: 16.90

Effluent Limits: Acute (%): 10.309 Chronic (%): 5.917 **Date range for Evaluation: From** 22/Jan/2015 **To:** 22/Jan/2020

Test Type: **A_NOEL**

Test Species: **MYSID SHRIMP**

Test Date	Result (%)	Status
07/09/2015	100.000	OK
10/19/2016	100.000	OK
07/18/2017	100.000	OK
02/21/2018	100.000	OK
05/22/2018	100.000	OK
08/28/2019	100.000	OK

Species Summary:

Test Number: 6 **RP:** 2.100 **Min Result (%):** 100.000 **RP factor (%):** 47.619 **Status:** OK

Test Type: **C_NOEL**

Test Species: **SEA URCHIN**

Test Date	Result (%)	Status
02/17/2015	50.000	OK
09/08/2015	100.000	OK
10/19/2016	100.000	OK
03/22/2017	100.000	OK
07/18/2017	100.000	OK
02/21/2018	100.000	OK
05/22/2018	100.000	OK
11/29/2018	100.000	OK
02/14/2019	100.000	OK
08/28/2019	100.000	OK

Species Summary:

Test Number: 10 **RP:** 1.200 **Min Result (%):** 50.000 **RP factor (%):** 41.667 **Status:** OK

ATTACHMENT D

PRIORITY POLLUTANT DATA SUMMARY

Date Range: 03/Mar/2015-03/Mar/2020

Facility Name: **BIDDEFORD WWTP** NPDES: **ME0100048**

Test Date	Monthly (Flow MGD)	Daily (Flow MGD)	Total Test Number	Test # By Group M	V	BN	P	O	A	Clean	Hg
09/08/2015	1.64	1.34	16	11	0	0	0	5	0	F	0
10/19/2016	2.43	1.09	128	13	28	46	25	5	11	F	0
03/21/2017	3.02	2.41	14	9	0	0	0	5	0	F	0
07/18/2017	1.37	1.43	128	13	28	46	25	5	11	F	0
02/21/2018	3.96	5.15	14	9	0	0	0	5	0	F	0
05/22/2018	2.36	2.21	124	13	28	46	25	1	11	F	0
11/29/2018	6.00	7.08	13	9	0	0	0	4	0	F	0
02/14/2019	3.21	2.65	13	9	0	0	0	4	0	F	0
08/28/2019	1.88	4.50	128	13	28	46	25	5	11	F	0

Key:

A = Acid O = Others P = Pesticides

BN = Base Neutral M = Metals V = Volatiles

ATTACHMENT E

MERCURY REPORT - Clean Test Only

Data Date Range: 12/01/1999-08/26/2019

Inspector Name: STUART ROSE

Facility: BIDDEFORD WWTP **Permit Number:** ME0100048

Max (ng/l): 40.6000 **Average (ng/l):** 6.6465

Sample Date	Result (ng/l)	Lsthan	Clean
01/10/2000	12.70	N	T
02/10/2000	12.80	N	T
06/14/2000	40.10	N	T
07/20/2000	8.12	N	T
08/02/2000	10.70	N	T
01/25/2001	14.10	N	T
03/21/2001	3.43	N	T
07/03/2001	1.83	N	T
09/26/2001	25.90	N	T
10/10/2001	9.81	N	T
01/14/2002	8.31	N	T
04/08/2002	4.40	N	T
07/09/2002	5.64	N	T
07/15/2002	14.80	N	T
10/10/2002	7.11	N	T
12/10/2002	9.27	N	T
02/10/2003	3.86	N	T
05/28/2003	4.69	N	T
08/12/2003	7.49	N	T
10/14/2003	4.30	N	T
12/01/2003	6.92	N	T
03/12/2004	6.17	N	T
06/07/2004	4.38	N	T
09/01/2004	16.90	N	T
12/10/2004	4.89	N	T
02/24/2005	5.85	N	T
04/25/2005	4.51	N	T
07/18/2005	3.14	N	T
07/19/2005	5.04	N	T
07/20/2005	3.35	N	T
07/21/2005	8.52	N	T
07/22/2005	4.36	N	T
12/07/2005	6.18	N	T
02/08/2006	40.60	N	T
05/09/2006	5.64	N	T
09/12/2006	7.99	N	T
12/14/2006	3.19	N	T
03/06/2007	4.38	N	T
04/30/2007	5.01	N	T
05/08/2007	5.01	N	T
07/17/2007	5.37	N	T
10/02/2007	9.96	N	T
03/11/2008	6.50	N	T
06/06/2008	5.20	N	T
09/09/2008	8.40	N	T
11/17/2008	5.60	N	T
11/19/2008	5.60	N	T
02/10/2009	4.70	N	T

05/19/2009	3.20	N	T
08/17/2009	5.00	N	T
12/15/2009	4.70	N	T
03/08/2010	2.50	N	T
06/24/2010	4.45	N	T
09/20/2010	5.86	N	T
12/09/2010	5.05	N	T
02/03/2011	4.20	N	T
04/07/2011	2.20	N	T
07/12/2011	3.80	N	T
10/25/2011	5.60	N	T
11/16/2011	3.70	N	T
02/28/2012	2.53	N	T
05/24/2012	3.78	N	T
08/14/2012	3.89	N	T
11/13/2012	3.43	N	T
11/13/2012	4.40	N	T
02/13/2013	3.31	N	T
04/22/2013	2.30	N	T
07/24/2013	3.30	N	T
10/16/2013	2.30	N	T
01/30/2014	4.70	N	T
04/15/2014	2.70	N	T
07/22/2014	2.10	N	T
10/21/2014	2.60	N	T
07/09/2015	1.30	N	T
10/20/2016	1.72	N	T
07/19/2017	1.32	N	T
07/09/2018	3.12	N	T

ATTACHMENT F

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAPTER 530.2(D)(4) CERTIFICATION

MEPDES#_____Facility Name_____

Since the effective date of your permit, have there been;		NO	YES Describe in comments section
1	Increases in the number, types, and flows of industrial, commercial, or domestic discharges to the facility that in the judgment of the Department may cause the receiving water to become toxic?	☐	☐
2	Changes in the condition or operations of the facility that may increase the toxicity of the discharge?	☐	☐
3	Changes in storm water collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge?	☐	☐
4	Increases in the type or volume of hauled wastes accepted by the facility?	☐	☐

COMMENTS:

Name (printed): _____

Signature:_____Date: _____

This document must be signed by the permittee or their legal representative.

This form may be used to meet the requirements of Chapter 530.2(D)(4). This Chapter requires all dischargers having waived or reduced toxic testing to file a statement with the Department describing changes to the waste being contributed to their system as outlined above. As an alternative, the discharger may submit a signed letter containing the same information.

Scheduled Toxicity Testing for the next calendar year

Test Conducted	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
WET Testing	□	□	□	□
Priority Pollutant Testing	□	□	□	□
Analytical Chemistry	□	□	□	□
Other toxic parameters [1]	□	□	□	□

Please place an "X" in each of the boxes that apply to when you will be conducting any one of the three test types during the next calendar year.

[1] This only applies to parameters where testing is required at a rate less frequently than quarterly.