



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

August 15, 2016

Mr. Howard Carter
Director, City of Saco Water Resource Recovery Department
300 Main St.
Saco, ME. 04072-1538
hcarter@sacomaine.org

*Sent via electronic mail
Delivery confirmation requested*

**RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0101117
Maine Waste Discharge License (WDL) Application #W002599-6D-K-R
Proposed Draft MEPDES Permit - Renewal**

Dear Mr. Carter:

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 August 15, 2016 and ends on September 16, 2016. All comments on the proposed draft permit must be received in the Department of Environmental Protection office on or before the close of business Friday, September 16, 2016. Failure to submit comments in a timely fashion will result in the proposed draft/license permit document being issued as drafted.

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

City of Saco
August 15, 2016
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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
Cindy.L.Dionne@maine.gov

If you have any questions regarding the matter, please feel free to contact me.

Sincerely,



Cindy L. Dionne
Division of Water Quality Management
Bureau of Water Quality
ph: 207-557-5950

Enc.

cc: Barry Mower, DEP
Pamela Parker, DEP
Stuart Rose, DEP
John True, DEP
Lori Mitchell, DEP
Sean Mahoney, CLF
Kathleen Leyden, DACF
Environmental Review, DMR
David Webster, USEPA
David Pincumbe, USEPA
Alex Rosenberg, USEPA
Olga Vergara, USEPA
Marelyn Vega, USEPA
Richard Carvalho, USEPA
Environmental Review, IFW



DEPARTMENT ORDER

IN THE MATTER OF

CITY OF SACO)	MAINE POLLUTANT DISCHARGE
PUBLICLY OWNED TREATMENT WORKS)	ELIMINATION SYSTEM PERMIT
SACO, YORK COUNTY, MAINE)	AND
ME0101117)	WASTE DISCHARGE LICENSE
W002599-6D-K-R)	RENEWAL
		APPROVAL

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), the Department has considered the application of the City of Saco (Saco), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

On March 4, 2016, the Department accepted as complete for processing an application from Saco for renewal of combination Waste Discharge License (WDL) # W002599-6D-H-R / Maine Pollutant Discharge Elimination System (MEPDES) permit # ME0101117, which was issued by the Department on August 8, 2011 for a five-year term. The August 8, 2011 permit authorized the monthly average discharge of 4.2 million gallons per day (MGD) of secondary treated sanitary wastewater from a publicly owned treatment works (POTW) to the tidal portion of the Saco River, Class SC, in Saco, Maine.

The 8/8/11 MEPDES permit also allowed Saco to discharge an unspecified quantity of primary treated municipal wastewater from a POTW and an unspecified quantity of untreated combined sanitary and storm water from four (4) combined sewer overflow (CSO) outfalls. Three CSO's discharge to the Saco River (two to Class SC waters and one to Class B water), and one CSO discharges to Bear Brook, Class B.

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PERMIT SUMMARY

a. Terms and conditions

This permitting action is different from the August 8, 2011 permit in that it:

For Secondary Treated Wastewater (Outfall #001A)

1. Incorporates monitoring and reporting requirements for the interim mercury limitations established by the Department for this facility 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);
2. Reduces the monitoring and reporting requirement for biochemical oxygen demand (BOD₅) and total suspended solids (TSS) from 3/Week to 2/Week;
3. Amends the whole effluent toxicity (WET) screening monitoring period from 12 months prior to permit expiration to 24 months prior to permit expiration;
4. Eliminates the monthly average limit for inorganic arsenic and reporting condition for total arsenic based on the results of facility testing;
5. Incorporates an Industrial Waste Survey (IWS) into Special Condition F. *Limitations for Industrial Users*;
6. Establishes a BOD₅ and TSS maximum daily concentration reporting condition when a bypass of secondary treatment is active;
7. Reduces the monitoring and reporting requirement for pH from 1/Day to 3/Week;

For Primary Treated Wastewater (Outfall #001B)

8. Eliminates BOD₅ and TSS percent removal monitoring and reporting requirements;
9. Establishes a reporting condition for minimum influent flow rate; and
10. Establishes daily maximum mass limits for BOD₅ and TSS to comply with U.S. Environmental Protection Agency (USEPA) CSO Control Policy and Clean Water Act section 402(q)(1).

CONCLUSIONS

BASED on the findings in the attached and incorporated Fact Sheet dated August 15, 2016, and subject to the Conditions listed below, 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 national resource, that water quality will be maintained and protected;
 - (c) Where the standards of classification of the receiving waterbody are not met, the discharge will not cause or contribute to the failure of the waterbody to meet the standards of classification;
 - (d) Where the actual quality of any classified receiving waterbody 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 four CSOs and the CSO related bypasses of secondary treatment) will be subject to effluent limitations that require application of best practicable treatment (BPT) as defined in *Conditions of licenses*, 38 M.R.S. § 414-A(1)(D).

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ACTION

THEREFORE, the Department APPROVES the application of the CITY of SACO to discharge a monthly average flow of 4.2 MGD of secondary treated sanitary wastewater and allows the discharge of an unspecified quantity of excess combined sanitary and storm water receiving primary treatment only from a municipal wastewater treatment facility and untreated combined sanitary and storm water from 4 CSO outfalls (three to the Saco River (one discharging to Class B waters and two discharging to Class SC waters) and one discharging to Bear Brook, Class B) in Saco, Maine, SUBJECT TO ALL APPLICABLE STANDARDS AND REGULATIONS AND THE FOLLOWING CONDITIONS:

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 becomes effective upon the date of signature below and expires at midnight five (5) years after that date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the terms and conditions of this permit and all subsequent 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 October 19, 2015).

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS ____ DAY OF _____ 2016.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
PAUL MERCER, Commissioner

Date of initial receipt of application March 3, 2016

Date of application acceptance March 4, 2016

Date filed with Board of Environmental Protection _____

This Order prepared by Cindy L. Dionne, Bureau of Water Quality

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge secondary treated sanitary wastewater from **Outfall #001A** to the Saco River in Saco. These limitations and monitoring requirements apply to all flows conveyed through the secondary treatment system at all times except as otherwise noted in the associated footnotes ⁽¹⁾ on pages 8-11.

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow [50050]	4.2 MGD [03]	---	Report MGD [03]	---	---	---	Continuous [99/99]	Recorder [RC]
BOD ₅ [00310]	1,050 lbs./day [26]	1,576 lbs./day [26]	Report lbs./day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L ⁽²⁾ [19]	2/Week [02/07]	Composite [24]
BOD ₅ Percent Removal ⁽³⁾ [81010]	---	---	---	85% [23]	---	---	1/Month [01/30]	Calculate [CA]
BOD ₅ [00310] <i>(When Bypass is active)</i>	1,050 lbs./day [26]	1,576 lbs./day [26]	Report lbs./day [26]	30 mg/L [19]	45 mg/L [19]	Report mg/L ⁽²⁾ [19]	2/Week [02/07]	Composite [24]
TSS [00530]	1,050 lbs./day [26]	1,576 lbs./day [26]	Report lbs./day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L ⁽²⁾ [19]	2/Week [02/07]	Composite [24]
TSS Percent Removal ⁽³⁾ [81011]	---	---	---	85% [23]	---	---	1/Month [01/30]	Calculate [CA]
TSS [00530] <i>(When Bypass is active)</i>	1,050 lbs./day [26]	1,576 lbs./day [26]	Report lbs./day [26]	30 mg/L [19]	45 mg/L [19]	Report mg/L ⁽²⁾ [19]	2/Week [02/07]	Composite [24]
Settleable Solids [00545]	---	---	---	---	---	0.3 ml/L [25]	5/Week [05/07]	Grab [GR]
Fecal Coliform Bacteria ⁽⁴⁾ [31616]	---	---	---	15/100 ml ⁽⁵⁾ [13]	---	50/100 ml [13]	3/Week [03/07]	Grab [GR]
Total Residual Chlorine (TRC) ⁽⁶⁾ [50060]	---	---	---	---	---	0.091 mg/L [19]	1/Day [01/01]	Grab [GR]
pH [00400]	---	---	---	---	---	6.0 – 9.0 SU [12]	3/Week [03/07]	Grab [GR]
Mercury (Total) ⁽⁷⁾ [71900]	---	---	---	8.1 ng/L [3M]	---	12.1 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 (DMRs).

SPECIAL CONDITIONS

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

2. The permittee is authorized to discharge secondary treated municipal wastewaters from **Outfall #001A** to the Saco River in Saco. Such discharges must be limited and monitored by the permittee as specified below ⁽¹⁾:

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	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity ⁽⁸⁾ <u>Acute – No Observed Effect Level (NOEL)</u> <i>Americamysis bahia</i> (Mysid Shrimp) [TDM3E]	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
<u>Chronic – NOEL</u> <i>Arbacia punctulata</i> (Sea urchin) [TBH3A]	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
Analytical chemistry ⁽⁹⁾ [51447]	---	---	---	Report µg/L [28]	1/Year [01/YR]	Composite/Grab [24]

SCREENING LEVEL - 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	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity ⁽⁸⁾ <u>Acute – NOEL</u> <i>Americamysis bahia</i> (Mysid Shrimp) [TDM3E]	---	---	---	Report % [23]	1/Quarter [01/90]	Composite [24]
<u>Chronic – NOEL</u> <i>Arbacia punctulata</i> (Sea urchin) [TBH3A]	---	---	---	Report % [23]	1/Quarter [01/90]	Composite [24]
Analytical chemistry ⁽⁹⁾ [51477]	---	---	---	Report µg/L [28]	1/Quarter [01/90]	Composite/Grab [24]
Priority Pollutant ⁽⁹⁾ [50008]	---	---	---	Report µg/L [28]	1/Year [01/YR]	Composite/Grab [24]

Footnotes: See Pages 8-11 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

3. PRIMARY TREATED WASTEWATER (Administrative OUTFALL #001B – Primary Treatment Only)

Consistent with CSO bypass regulations, the permittee is allowed to bypass secondary treatment and provide primary treatment only prior to discharging to the Saco River. Bypassing secondary treatment is allowed when flow rate through secondary treatment exceeds a peak hourly flow rate of 5,556 gpm (8.0 MGD). Allowance to bypass secondary treatment will be reviewed and may be modified or terminated pursuant to Special Condition M, *Reopening of Permit for Modification*, if there is substantial change in the volume or character of pollutants in the collection/treatment system. Also see supplemental report form, *DEP-49-CSO Form For Use With Dedicated CSO Primary Clarifier*, **Attachment A** of this permit. Outfall #001B must be monitored as follows ⁽¹⁾:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Influent Flow Rate Minimum [00058]	---	Report (gpm) ⁽¹⁰⁾ [78]	---	---	Instantaneous [01/99]	Recorder [RC]
Flow [50050]	Report (Total MG) [3R]	Report (MGD) [03]	---	---	Continuous [99/99]	Recorder [RC]
Overflow Occurrence ⁽¹¹⁾ [74062]	---	Report (# of days) [93]	---	---	1/Discharge Day ⁽¹²⁾ [01/DD]	Record Total [RT]
BOD ₅ [00310]	---	1,882 lbs./day [26]	---	Report mg/L [19]	1/Discharge Day ^(12,13) [01/DD]	Composite [CP]
TSS [00530]	---	5,127 lbs./day [26]	---	Report mg/L [19]	1/Discharge Day ^(12,13) [01/DD]	Composite [CP]
Fecal Coliform bacteria [31633]	---	---	---	200/100 ml ⁽⁵⁾ [13]	1/Discharge Day ^(12,13) [01/DD]	Grab [GR]
TRC ⁽⁶⁾ [50060]	---	---	---	1.0 mg/L [19]	1/Discharge Day ^(12,13) [01/DD]	Grab [GR]
pH [00400]	---	---	---	Report SU [12]	1/Discharge Day ^(12,13) [01/DD]	Grab [GR]

Footnotes: See Pages 8-11 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

Footnotes

1. **Sampling** – The permittee must conduct all effluent 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. Samples that are analyzed by laboratories operated by waste discharge facilities licensed 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 (last amended April 1, 2010). Laboratory facilities that analyze compliance samples in-house are subject to the provisions and restrictions of 10-144 CMR 263. If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the DMR.

Sampling Locations: Any change in sampling location(s) other than those specified below must be reviewed and approved by the Department in writing.

Influent sampling for BOD₅ and TSS must be conducted;

- a. Storm King® Swirl (primary treatment only) – At the diversion structure.
- b. Biological (secondary) treatment – At the headworks for flows receiving secondary treatment.

Effluent sampling for applicable parameters must be conducted;

- a. Storm King® Swirl (primary treatment only) – After dedicated primary dechlorination structure.
- b. Biological (secondary) treatment – After dedicated secondary dechlorination structure.

2. **Daily Maximum Concentration limit** – When the bypass of secondary treatment is active, the daily maximum concentration limit of 50 mg/L for BOD₅ and TSS at Outfall #001A is not in effect. Sample results taken for these parameters when the bypass of secondary treatment is active are not to be included in calculations to determine compliance with monthly or weekly average limitations.
3. **Percent Removal** – The permittee must achieve a minimum of 85 percent removal of both TSS and BOD₅ 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 200 mg/L. For instances when this occurs, the facility may report “N9” on the monthly DMR.

SPECIAL CONDITIONS

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

Footnotes

4. **Fecal coliform bacteria** - Limits and monitoring requirements are in effect on a year-round basis.
5. **Fecal coliform bacteria** – The monthly average limitation is a geometric mean limitation and values must be calculated and reported as such.
6. **TRC** – Limitations and monitoring requirements are applicable whenever elemental chlorine or chlorine based compounds are being used to disinfect the discharge. The permittee must utilize approved test methods that are capable of bracketing the limitations in this permit.
7. **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 CMR 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*. See **Attachment B** of this permit for a Department report 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.
8. **WET Testing** – Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions set at levels to bracket the modified acute and chronic critical water quality thresholds of 14.3% and 5.7%, respectively), which provides a point estimate of toxicity in terms of NOEL. 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 7.0:1 and 17.5:1, respectively, for Outfall #001A.

Test results must be submitted to the Department no 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 exceedences of the critical acute and chronic water quality thresholds of 14.3% and 5.7%, respectively.

SPECIAL CONDITIONS

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

Footnotes

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. EPA 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 Water” form included as **Attachment C** of this permit each time a WET test is performed.

The permittee must analyze the effluent for the analytical chemistry and priority pollutant parameters specified on the “WET and Chemical Specific Data Report Form” included as **Attachment D** of this permit each time a WET test is performed.

9. **Analytical chemistry and Priority Pollutant testing** – Refers to those pollutants listed in their respective categories on the form included as **Attachment D** of this permit.

Analytical chemistry and priority pollutant 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 laboratory 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 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 July 29, 2012).

Analytical chemistry and priority pollutant testing must be conducted on samples collected at the same time as those collected for whole effluent toxicity tests, when applicable, and must be conducted using methods that permit detection of a pollutant at existing levels in the effluent or that achieve the most current minimum reporting levels of detection as specified by the Department.

SPECIAL CONDITIONS

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

Footnotes

10. **Influent Flow Rate Minimum** – The permittee must report the minimum instantaneous influent flow rate entering the headworks of the plant at the time each bypass of secondary treatment is activated.
11. **Overflow Occurrence** – An overflow occurrence is defined as the period of time between initiation of flow from the primary bypass and ceasing discharge from the primary bypass. Overflow occurrences are reported in discharge days. Multiple intermittent overflow occurrences in one discharge day are reported as one overflow occurrence and are sampled according to the measurement frequency specified.
12. **Discharge Day** – A discharge day is defined as a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling.
13. **BOD₅, TSS, TRC, Fecal Coliform bacteria, and pH** – When the bypass is active, sampling to comply with the 1/Discharge Day monitoring requirement for these parameters is only required if it coincides with the scheduled monitoring event for the secondary treated effluent waste stream.

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 for 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 for the classification of the receiving waters.
3. The permittee must not discharge effluent that causes visible discoloration or turbidity in the receiving waters or otherwise impairs the uses designated for the classification of the receiving waters.
4. The permittee must not discharge effluent that lowers the quality of any classified body of water below such classification, or lowers 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 Maine **Grade IV**, Biological Treatment certificate (or higher) or must be a Maine Registered 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. 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 (increase or decrease) in the volume or character of pollutants being introduced into the wastewater collection and treatment system by a source introducing pollutants into the system at the time of permit issuance.
3. For the purposes of this section, adequate notice must include information on:
 - (a) The quality and quantity of wastewater introduced to the wastewater collection and treatment system; and
 - (b) Any anticipated impact of the change in the quantity or quality of the wastewater to be discharged from the treatment system.

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SPECIAL CONDITIONS

E. MONITORING AND REPORTING

Monitoring results obtained during the previous month must be summarized for each month and reported on separate DMR forms provided by the Department and **postmarked on or before the thirteenth (13th) day of the month or hand-delivered to the Department's Regional Office such that the DMRs are received by the Department on or before the fifteenth (15th) day of the month** following the completed reporting period. A signed copy of the DMR and all other reports required herein must be submitted to the Department-assigned inspector (unless otherwise specified by the Department) at the 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

Alternatively, if the permittee submits an electronic DMR, the completed DMR must be electronically submitted to the Department by a facility authorized DMR Signatory not later than close of business on the **15th day of the month** following the completed reporting period. Hard copy documentation submitted in support of the DMR must be postmarked on or before the **thirteenth (13th) day of the month or hand-delivered** to the Department's Regional Office such that it is received by the Department on or before the fifteenth (15th) day of the month following the completed reporting period. Electronic documentation in support of the DMR must be submitted not later than close of business on the 15th day of the month following the completed reporting period.

F. 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).

SPECIAL CONDITIONS

G. 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 March 4, 2016; 2) the terms and conditions of this permit; and 3) only from Outfalls #001A, #001B, and four (4) combined sewer overflow outfalls listed in Special Condition K, *Combined Sewer Overflows*, of this permit. Discharges of wastewater from any other point source are not authorized under this permit, and must be reported in accordance with Standard Condition D(1)(f), *Twenty-four hour reporting*, of this permit.

H. WET WEATHER MANAGEMENT PLAN

The treatment facility staff must have a current written Wet Weather 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.

I. OPERATION & 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.

SPECIAL CONDITIONS

J. DISPOSAL OF TRANSPORTED WASTES IN WASTEWATER TREATMENT FACILITY

During the effective period of this permit, the permittee is authorized to receive and introduce into the treatment process or solids handling stream **a daily maximum of 7,000 gallons per day** 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.
2. 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.
3. At no time may 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.

4. 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.

SPECIAL CONDITIONS

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

5. The addition of transported wastes into the treatment process or solids handling stream must not cause the treatment facility's 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.
6. 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.
7. During wet weather events, transported wastes may be added to the treatment process or solids handling facilities only in accordance with a current Wet Weather Flow Management Plan approved by the Department that provides for full treatment of transported wastes without adverse impacts.
8. 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.
9. 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.
10. The authorization 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 Chapter 555 of the Department's rules and the terms and conditions of this permit.

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SPECIAL CONDITIONS

K. EFFLUENT LIMITATIONS AND CONDITIONS FOR COMBINED SEWER OVERFLOWS (CSO'S)

Pursuant to Chapter 570 of Department Rules, *Combined Sewer Overflow Abatement*, the permittee is allowed to discharge from the following locations of CSO's (stormwater and sanitary wastewater) subject to the conditions and requirements herein.

1. CSO Locations:

<u>Outfall #</u>	<u>Location</u>	<u>Receiving Water & Class</u>	
003	Main Street	Saco River	Class B
004	Front Street	Saco River	Class SC
006	Tappan Valley & Hall Ave.	Saco River	Class SC
008	Bear Brook Pump Station	Bear Brook	Class B

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 applicable design capacities of the wastewater treatment facility, pumping stations or sewerage system.

3. Narrative Effluent Limitations

- a) The effluent must not contain 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 effluent must not contain 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 discharge must not impart 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.

SPECIAL CONDITIONS

K. COMBINED SEWER OVERFLOWS (CSO's)(cont'd)

- 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 Long Term Control Plan

The permittee must implement CSO control projects in accordance with an approved CSO Master Plan. The previous Master Plan entitled *Combined Sewer Overflow Master Abatement Plan* was submitted to the Department in October of 1995 and subsequently updated in April of 2001. The most recent Master Plan entitled *City of Saco CSO Abatement Master Plan Update* was received on May 31, 2016, modified on June 1, 2016 and approved by the Department on June 1, 2016. Key milestones approved in this most recent Master Plan with abatement schedule or agreed to by the permittee and Department that the permittee is required to comply with are:

On or before December 31, 2016 (ICIS Code 75305), the permittee must submit to the Department a certification stating construction of the projects referred to as the High Street sewer separation project, has been completed.

On or before December 31, 2017 (ICIS Code 75305), the permittee must complete construction of the projects referred to as the Promenade cross-country sewer and Hall Street sewer rehabilitation projects.

On or before December 31, 2018 (ICIS Code 75305), the permittee must complete construction of the projects referred to as the Park Street and Industrial Park cross-country sewer rehabilitation projects.

On or before August 1, 2021, (ICIS Code 81699), the permittee must submit an updated CSO Master Plan which includes a flow study analysis and abatement schedule, unless all remaining CSO discharge points have been eliminated.

To modify the dates and or projects specified above, the permittee must file an application with the Department to formally modify this permit. The remaining work items identified in 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.

5. Nine Minimum Controls (NMC) (see Section 5 Chapter 570 of Department Rules)
The permittee must implement and follow the Nine Minimum Control documentation as approved by EPA 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).

SPECIAL CONDITIONS

K. COMBINED SEWER OVERFLOWS (CSO's)(cont'd)

6. CSO Compliance Monitoring Program (see Section 6 Chapter 570 of Department Rules)

The permittee must conduct 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, by estimation using a model such as EPA's Storm Water Management Model (SWMM) or by some other estimation technique approved by the Department.

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 E** of this permit) or similar format and submitted to the Department on diskette.

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. Additions of New Wastewater (see Section 8 Chapter 570 of Department Rules)

Chapter 570 Section 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. Any sewer extensions must be reviewed and approved by the Department prior to their connection to the collection system. A Sewer Extension/Addition Reporting Form (which can be supplied by the Department) must be completed and submitted to the Department for review by facility inspector, assigned engineer, and CSO coordinator. If the information provided is deemed sufficient, Department staff must sign off on the project and no further submittals are necessary. If Department staff considers the project significant enough to warrant a detailed review, the Department may request full plans and specifications, or other relevant information, be submitted.

SPECIAL CONDITIONS

K. COMBINED SEWER OVERFLOWS (CSO's) (cont'd)

8. Annual CSO Progress Reports (see Section 7 of Chapter 570 of Department Rules) **By March 1 of each year (ICIS Code CSO 010)**, the permittee must submit a *CSO Progress Report* 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 Chapter 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.

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 Department's CSO Coordinator at the address in Special Condition E, *Monitoring and Reporting*, of this permit.

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 SACO
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 storm water 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.

SPECIAL CONDITIONS

L. 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 75305*]. See **Attachment C** 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 (hailed) 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.

M. REOPENING OF PERMIT FOR MODIFICATIONS

In accordance with 38 M.R.S. § 414-A(5) and upon evaluation of the test results in the 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 limitations 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.

SPECIAL CONDITIONS

N. SEVERABILITY

In the event that any provision 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.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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A. GENERAL PROVISIONS

1. General compliance. All discharges shall be consistent with the terms and conditions of this permit; any changes in production capacity or process modifications which result in changes in the quantity or the characteristics of the discharge must be authorized by an additional license or by modifications of this permit; it shall be a violation of the terms and conditions of this permit to discharge any pollutant not identified and authorized herein or to discharge in excess of the rates or quantities authorized herein or to violate any other conditions of this permit.

2. Other materials. Other materials ordinarily produced or used in the operation of this facility, which have been specifically identified in the application, may be discharged at the maximum frequency and maximum level identified in the application, provided:

- (a) They are not
 - (i) Designated as toxic or hazardous under the provisions of Sections 307 and 311, respectively, of the Federal Water Pollution Control Act; Title 38, Section 420, Maine Revised Statutes; or other applicable State Law; or
 - (ii) Known to be hazardous or toxic by the licensee.
- (b) The discharge of such materials will not violate applicable water quality standards.

3. Duty to comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of State law and the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

- (a) The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act, and 38 MRSA, §420 or Chapter 530.5 for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
- (b) Any person who violates any provision of the laws administered by the Department, including without limitation, a violation of the terms of any order, rule license, permit, approval or decision of the Board or Commissioner is subject to the penalties set forth in 38 MRSA, §349.

4. Duty to provide information. The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

5. Permit actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

6. Reopener clause. The Department reserves the right to make appropriate revisions to this permit in order to establish any appropriate effluent limitations, schedule of compliance or other provisions which may be authorized under 38 MRSA, §414-A(5).

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STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

7. Oil and hazardous substances. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under section 311 of the Federal Clean Water Act; section 106 of the Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980; or 38 MRSA §§ 1301, et. seq.

8. Property rights. This permit does not convey any property rights of any sort, or any exclusive privilege.

9. Confidentiality of records. 38 MRSA §414(6) reads as follows. "Any records, reports or information obtained under this subchapter is available to the public, except that upon a showing satisfactory to the department by any person that any records, reports or information, or particular part or any record, report or information, other than the names and addresses of applicants, license applications, licenses, and effluent data, to which the department has access under this subchapter would, if made public, divulge methods or processes that are entitled to protection as trade secrets, these records, reports or information must be confidential and not available for public inspection or examination. Any records, reports or information may be disclosed to employees or authorized representatives of the State or the United States concerned with carrying out this subchapter or any applicable federal law, and to any party to a hearing held under this section on terms the commissioner may prescribe in order to protect these confidential records, reports and information, as long as this disclosure is material and relevant to any issue under consideration by the department."

10. Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

11. Other laws. The issuance of this permit does not authorize any injury to persons or property or invasion of other property rights, nor does it relieve the permittee of its obligation to comply with other applicable Federal, State or local laws and regulations.

12. Inspection and entry. The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the EPA Administrator), upon presentation of credentials and other documents as may be required by law, to:

- (a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- (d) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

B. OPERATION AND MAINTENANCE OF FACILITIES

1. General facility requirements.

- (a) The permittee shall collect all waste flows designated by the Department as requiring treatment and discharge them into an approved waste treatment facility in such a manner as to

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

- maximize removal of pollutants unless authorization to the contrary is obtained from the Department.
- (b) The permittee shall at all times maintain in good working order and operate at maximum efficiency all waste water collection, treatment and/or control facilities.
 - (c) All necessary waste treatment facilities will be installed and operational prior to the discharge of any wastewaters.
 - (d) Final plans and specifications must be submitted to the Department for review prior to the construction or modification of any treatment facilities.
 - (e) The permittee shall install flow measuring facilities of a design approved by the Department.
 - (f) The permittee must provide an outfall of a design approved by the Department which is placed in the receiving waters in such a manner that the maximum mixing and dispersion of the wastewaters will be achieved as rapidly as possible.

2. Proper operation and maintenance. The permittee shall 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. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

3. Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

4. Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

5. Bypasses.

- (a) Definitions.
 - (i) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
 - (ii) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- (b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this section.
- (c) Notice.
 - (i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

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- (ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph D(1)(f), below. (24-hour notice).
- (d) Prohibition of bypass.
 - (i) Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
 - (A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (C) The permittee submitted notices as required under paragraph (c) of this section.
 - (ii) The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in paragraph (d)(i) of this section.

6. Upsets.

- (a) Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- (b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (c) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- (c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (i) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (ii) The permitted facility was at the time being properly operated; and
 - (iii) The permittee submitted notice of the upset as required in paragraph D(1)(f) , below. (24 hour notice).
 - (iv) The permittee complied with any remedial measures required under paragraph B(4).
- (d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

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C. MONITORING AND RECORDS

1. General Requirements. This permit shall be subject to such monitoring requirements as may be reasonably required by the Department including the installation, use and maintenance of monitoring equipment or methods (including, where appropriate, biological monitoring methods). The permittee shall provide the Department with periodic reports on the proper Department reporting form of monitoring results obtained pursuant to the monitoring requirements contained herein.

2. Representative sampling. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. If effluent limitations are based wholly or partially on quantities of a product processed, the permittee shall ensure samples are representative of times when production is taking place. Where discharge monitoring is required when production is less than 50%, the resulting data shall be reported as a daily measurement but not included in computation of averages, unless specifically authorized by the Department.

3. Monitoring and records.

- (a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- (b) Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.
- (c) Records of monitoring information shall include:
 - (i) The date, exact place, and time of sampling or measurements;
 - (ii) The individual(s) who performed the sampling or measurements;
 - (iii) The date(s) analyses were performed;
 - (iv) The individual(s) who performed the analyses;
 - (v) The analytical techniques or methods used; and
 - (vi) The results of such analyses.
- (d) Monitoring results must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in the permit.
- (e) State law provides that any person who tampers with or renders inaccurate any monitoring devices or method required by any provision of law, or any order, rule license, permit approval or decision is subject to the penalties set forth in 38 MRSA, §349.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

D. REPORTING REQUIREMENTS

1. Reporting requirements.

- (a) Planned changes. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
 - (i) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - (ii) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under Section D(4).
 - (iii) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
- (b) Anticipated noncompliance. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (c) Transfers. This permit is not transferable to any person except upon application to and approval of the Department pursuant to 38 MRSA, § 344 and Chapters 2 and 522.
- (d) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.
 - (i) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Department for reporting results of monitoring of sludge use or disposal practices.
 - (ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Department.
 - (iii) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Department in the permit.
- (e) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- (f) Twenty-four hour reporting.
 - (i) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

(ii) The following shall be included as information which must be reported within 24 hours under this paragraph.

(A) Any unanticipated bypass which exceeds any effluent limitation in the permit.

(B) Any upset which exceeds any effluent limitation in the permit.

(C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours.

(iii) The Department may waive the written report on a case-by-case basis for reports under paragraph (f)(ii) of this section if the oral report has been received within 24 hours.

(g) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (d), (e), and (f) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (f) of this section.

(h) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

2. Signatory requirement. All applications, reports, or information submitted to the Department shall be signed and certified as required by Chapter 521, Section 5 of the Department's rules. State law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan or other document filed or required to be maintained by any order, rule, permit, approval or decision of the Board or Commissioner is subject to the penalties set forth in 38 MRSA, §349.

3. Availability of reports. Except for data determined to be confidential under A(9), above, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. As required by State law, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal sanctions as provided by law.

4. Existing manufacturing, commercial, mining, and silvicultural dischargers. In addition to the reporting requirements under this Section, all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Department as soon as they know or have reason to believe:

(a) That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(i) One hundred micrograms per liter (100 ug/l);

(ii) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

(iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or

(iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

- (b) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (i) Five hundred micrograms per liter (500 ug/l);
 - (ii) One milligram per liter (1 mg/l) for antimony;
 - (iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or
 - (iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

5. Publicly owned treatment works.

- (a) All POTWs must provide adequate notice to the Department of the following:
 - (i) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA or Chapter 528 if it were directly discharging those pollutants.
 - (ii) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
 - (iii) For purposes of this paragraph, adequate notice shall include information on (A) the quality and quantity of effluent introduced into the POTW, and (B) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.
- (b) When the effluent discharged by a POTW for a period of three consecutive months exceeds 80 percent of the permitted flow, the permittee shall submit to the Department a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.

E. OTHER REQUIREMENTS

1. Emergency action - power failure. Within thirty days after the effective date of this permit, the permittee shall notify the Department of facilities and plans to be used in the event the primary source of power to its wastewater pumping and treatment facilities fails as follows.

- (a) For municipal sources. During power failure, all wastewaters which are normally treated shall receive a minimum of primary treatment and disinfection. Unless otherwise approved, alternate power supplies shall be provided for pumping stations and treatment facilities. Alternate power supplies shall be on-site generating units or an outside power source which is separate and independent from sources used for normal operation of the wastewater facilities.
- (b) For industrial and commercial sources. The permittee shall either maintain an alternative power source sufficient to operate the wastewater pumping and treatment facilities or halt, reduce or otherwise control production and or all discharges upon reduction or loss of power to the wastewater pumping or treatment facilities.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

2. Spill prevention. (applicable only to industrial sources) Within six months of the effective date of this permit, the permittee shall submit to the Department for review and approval, with or without conditions, a spill prevention plan. The plan shall delineate methods and measures to be taken to prevent and or contain any spills of pulp, chemicals, oils or other contaminants and shall specify means of disposal and or treatment to be used.

3. Removed substances. Solids, sludges trash rack cleanings, filter backwash, or other pollutants removed from or resulting from the treatment or control of waste waters shall be disposed of in a manner approved by the Department.

4. Connection to municipal sewer. (applicable only to industrial and commercial sources) All wastewaters designated by the Department as treatable in a municipal treatment system will be cosigned to that system when it is available. This permit will expire 90 days after the municipal treatment facility becomes available, unless this time is extended by the Department in writing.

F. DEFINITIONS. For the purposes of this permit, the following definitions shall apply. Other definitions applicable to this permit may be found in Chapters 520 through 529 of the Department's rules

Average means the arithmetic mean of values taken at the frequency required for each parameter over the specified period. For bacteria, the average shall be the geometric mean.

Average monthly discharge limitation means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. Except, however, bacteriological tests may be calculated as a geometric mean.

Average weekly discharge limitation means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best management practices ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Composite sample means a sample consisting of a minimum of eight grab samples collected at equal intervals during a 24 hour period (or a lesser period as specified in the section on monitoring and reporting) and combined proportional to the flow over that same time period.

Continuous discharge means a discharge which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities.

Daily discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

Discharge Monitoring Report ("DMR") means the EPA uniform national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by permittees. DMRs must be used by approved States as well as by EPA. EPA will supply DMRs to any approved State upon request. The EPA national forms may be modified to substitute the State Agency name, address, logo, and other similar information, as appropriate, in place of EPA's.

Flow weighted composite sample means a composite sample consisting of a mixture of aliquots collected at a constant time interval, where the volume of each aliquot is proportional to the flow rate of the discharge.

Grab sample means an individual sample collected in a period of less than 15 minutes.

Interference means a Discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

- (1) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
- (2) Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Maximum daily discharge limitation means the highest allowable daily discharge.

New source means any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:

- (a) After promulgation of standards of performance under section 306 of CWA which are applicable to such source, or
- (b) After proposal of standards of performance in accordance with section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal.

Pass through means a discharge which exits the POTW into waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

Permit means an authorization, license, or equivalent control document issued by EPA or an approved State to implement the requirements of 40 CFR parts 122, 123 and 124. Permit includes an NPDES general permit (Chapter 529). Permit does not include any permit which has not yet been the subject of final agency action, such as a draft permit or a proposed permit.

Person means an individual, firm, corporation, municipality, quasi-municipal corporation, state agency, federal agency or other legal entity.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

Point source means any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft, from which pollutants are or may be discharged.

Pollutant means dredged spoil, solid waste, junk, incinerator residue, sewage, refuse, effluent, garbage, sewage sludge, munitions, chemicals, biological or radiological materials, oil, petroleum products or byproducts, heat, wrecked or discarded equipment, rock, sand, dirt and industrial, municipal, domestic, commercial or agricultural wastes of any kind.

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Publicly owned treatment works ("POTW") means any facility for the treatment of pollutants owned by the State or any political subdivision thereof, any municipality, district, quasi-municipal corporation or other public entity.

Septage means, for the purposes of this permit, any waste, refuse, effluent sludge or other material removed from a septic tank, cesspool, vault privy or similar source which concentrates wastes or to which chemicals have been added. Septage does not include wastes from a holding tank.

Time weighted composite means a composite sample consisting of a mixture of equal volume aliquots collected over a constant time interval.

Toxic pollutant includes any pollutant listed as toxic under section 307(a)(1) or, in the case of sludge use or disposal practices, any pollutant identified in regulations implementing section 405(d) of the CWA. Toxic pollutant also includes those substances or combination of substances, including disease causing agents, which after discharge or upon exposure, ingestion, inhalation or assimilation into any organism, including humans either directly through the environment or indirectly through ingestion through food chains, will, on the basis of information available to the board either alone or in combination with other substances already in the receiving waters or the discharge, cause death, disease, abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformations in such organism or their offspring.

Wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Whole effluent toxicity means the aggregate toxic effect of an effluent measured directly by a toxicity test.

ATTACHMENT A

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP-49-CSO FORM FOR USE WITH DEDICATED CSO PRIMARY CLARIFIERS

WET WEATHER BYPASS OPERATIONS REPORT FOR _____

State License No. _____ MEPDES/NPDES Permit No. _____

SIGNED BY: _____ DATE: _____

Doc Num: DEPLW0463
DEP-49-CSO-Dedicated.xls (rev. 12/12/01)

DATE MONTH YEAR	SECONDARY BYPASS FLOW DATA						Cl RESIDUALS				BACTERIA						BOD5						TSS				WEATHER			COMMENTS						
	REATED PRIMARY FLOW BYPASSING SECONDARY	BYPASS FLOW SURFACE AREA	BYPASS DURATION	BYPASS CLARIFIER LOADING RATE	SECONDARY FLOW TREATED	TIME CSO BYPASS AROUND PERMIT	MAX CHLORINE DOSE	CHLORINE RESIDUAL IN PRIMARY EFFLUENT	CHLORINE RESIDUAL IN SECONDARY EFFLUENT	CALCULATED BLEND EFFLUENT	E. COLI / FECAL IN PRIMARY EFFLUENT	E. COLI / FECAL IN PRIMARY EFFLUENT	E. COLI / FECAL IN PRIMARY EFFLUENT	E. COLI / FECAL IN PRIMARY EFFLUENT	E. COLI / FECAL IN SECONDARY EFFLUENT	CALCULATED BLEND EFFLUENT	pH	SETTLABLE SOLIDS IN PRIMARY EFFLUENT	PRIMARY INFLUENT	PRIMARY EFFLUENT	% BOD5 REMOVAL	SECONDARY EFFLUENT	CALCULATED BLEND EFFLUENT	PRIMARY INFLUENT	PRIMARY EFFLUENT	% TSS REMOVAL	SECONDARY EFFLUENT	CALCULATED BLEND EFFLUENT	CONDITIONS		TEMPERATURE	PRECIPITATION	STORM DURATION			
1																																				
2																																				
3																																				
4																																				
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30																																				
31																																				

Total

Avr

Max

Number of discharge days

Avr

Max

ATTACHMENT B



Data Date Range: 01/Mar/2001 - 01/Mar/2016

Facility: SACO

Permit Number: ME0101117

Max (ug/l): 0.0037

Average (ug/l): 0.0018

Sample Date	Result (ng/l)	Lsthan	Clean
02/10/2009	1.80	N	T
06/03/2009	1.60	N	T
08/18/2009	3.70	N	T
02/19/2010	2.70	N	T
05/21/2010	1.58	N	T
08/05/2010	1.23	N	T
10/05/2010	1.73	N	T
03/21/2011	1.40	N	T
06/14/2011	1.70	N	T
09/21/2011	1.40	N	T
12/26/2012	2.24	N	T
04/22/2013	1.18	N	T
03/27/2014	2.04	N	T
04/24/2015	1.25	N	T

ATTACHMENT C

**MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
WHOLE EFFLUENT TOXICITY REPORT
MARINE WATERS**

Facility Name _____ MEPDES Permit # _____
Pipe # _____

Facility Representative _____ Signature _____

By signing this form, I attest that to the best of my knowledge that the information provided is true, accurate, and complete.

Facility Telephone # _____ Date Collected _____ Date Tested _____
mm/dd/yy mm/dd/yy

Chlorinated? _____ Dechlorinated? _____

Results	% effluent		Effluent Limitations
	mysisd shrimp	sea urchin	
A-NOEL			A-NOEL
C-NOEL			C-NOEL

Data summary	mysisd shrimp	sea urchin	Salinity Adjustment
	% survival	% fertilized	
QC standard	>90	>70	
lab control			brine
receiving water control			sea salt
conc. 1 (%)			other
conc. 2 (%)			
conc. 3 (%)			
conc. 4 (%)			
conc. 5 (%)			
conc. 6 (%)			
stat test used			

place * next to values statistically different from controls

Reference toxicant	mysisd shrimp	sea urchin
	A-NOEL	C-NOEL
toxicant / date		
limits (mg/L)		
results (mg/L)		

Comments _____

Laboratory conducting test

Company Name _____ Company Rep. Name (Printed) _____

Mailing Address _____ Company Rep. Signature _____

City, State, ZIP _____ Company Telephone # _____

Report WET chemistry on DEP Form "ToxSheet (Marine Version), March 2007."

ATTACHMENT D

**Maine Department of Environmental Protection
WET and Chem**

This form is for reporting laboratory data and facility information. Official compliance reviews will be done by DEP.

Facility Name _____ MEPDES # _____ Facility Representative Signature _____
 Pipe # _____ To the best of my knowledge this information is true, accurate and complete.

Licensed Flow (MGD)
 Acute dilution factor
 Chronic dilution factor
 Human health dilution factor
 Criteria type: M(arine) or F(resh)

Flow for Day (MGD)⁽¹⁾ Flow Avg. for Month (MGD)⁽²⁾
 Date Sample Collected Date Sample Analyzed

Laboratory _____ Telephone _____
 Address _____
 Lab Contact _____ Lab ID # _____

Last Revision - July 1, 2015

ERROR WARNING ! Essential facility information is missing. Please check required entries in bold above.

MARINE AND ESTUARY VERSION

Please see the footnotes on the last page.

WHOLE EFFLUENT TOXICITY					Receiving Water or Ambient	Effluent Concentration (ug/L or as noted)	Reporting Limit Check	Possible Exceedence ⁽⁷⁾			
		Effluent Limits, %				WET Result, % Do not enter % sign		Acute	Chronic		
		Acute	Chronic								
	Mysid Shrimp										
	Sea Urchin										
WET CHEMISTRY											
	pH (S.U.) ⁽⁹⁾										
	Total Organic Carbon (mg/L)				NA						
	Total Solids (mg/L)				NA						
	Total Suspended Solids (mg/L)				NA						
	Salinity (ppt.)										
ANALYTICAL CHEMISTRY ⁽³⁾								Possible Exceedence ⁽⁷⁾			
	Also do these tests on the effluent with WET. Testing on the receiving water is optional	Reporting Limit	Effluent Limits, ug/L					Reporting Limit Check	Acute	Chronic	Health
	TOTAL RESIDUAL CHLORINE (mg/L) ⁽⁹⁾	0.05	Acute ⁽⁶⁾	Chronic ⁽⁶⁾	Health ⁽⁶⁾						
	AMMONIA	NA				(8)					
M	ALUMINUM	NA				(8)					
M	ARSENIC	5				(8)					
M	CADMIUM	1				(8)					
M	CHROMIUM	10				(8)					
M	COPPER	3				(8)					
M	CYANIDE, TOTAL	5				(8)					
	CYANIDE, AVAILABLE ^(3a)	5				(8)					
M	LEAD	3				(8)					
M	NICKEL	5				(8)					
M	SILVER	1				(8)					
M	ZINC	5				(8)					

Maine Department of Environmental Protection
WET and Chem

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PRIORITY POLLUTANTS ⁽⁴⁾		Effluent Limits				Reporting Limit Check	Possible Exceedence ⁽⁷⁾		
	Reporting Limit	Acute ⁽⁶⁾	Chronic ⁽⁶⁾	Health ⁽⁶⁾	Acute		Chronic	Health	
M	ANTIMONY	5							
M	BERYLLIUM	2							
M	MERCURY (5)	0.2							
M	SELENIUM	5							
M	THALLIUM	4							
A	2,4,6-TRICHLOROPHENOL	5							
A	2,4-DICHLOROPHENOL	5							
A	2,4-DIMETHYLPHENOL	5							
A	2,4-DINITROPHENOL	45							
A	2-CHLOROPHENOL	5							
A	2-NITROPHENOL	5							
A	4,6 DINITRO-O-CRESOL (2-Methyl-4,6-dinitrophenol)	25							
A	4-NITROPHENOL	20							
A	P-CHLORO-M-CRESOL (3-methyl-4-chlorophenol)+B80	5							
A	PENTACHLOROPHENOL	20							
A	PHENOL	5							
BN	1,2,4-TRICHLOROBENZENE	5							
BN	1,2-(O)DICHLOROBENZENE	5							
BN	1,2-DIPHENYLHYDRAZINE	20							
BN	1,3-(M)DICHLOROBENZENE	5							
BN	1,4-(P)DICHLOROBENZENE	5							
BN	2,4-DINITROTOLUENE	6							
BN	2,6-DINITROTOLUENE	5							
BN	2-CHLORONAPHTHALENE	5							
BN	3,3'-DICHLOROBENZIDINE	16.5							
BN	3,4-BENZO(B)FLUORANTHENE	5							
BN	4-BROMOPHENYLPHENYL ETHER	5							
BN	4-CHLOROPHENYL PHENYL ETHER	5							
BN	ACENAPHTHENE	5							
BN	ACENAPHTHYLENE	5							
BN	ANTHRACENE	5							
BN	BENZIDINE	45							
BN	BENZO(A)ANTHRACENE	8							
BN	BENZO(A)PYRENE	5							
BN	BENZO(G,H,I)PERYLENE	5							
BN	BENZO(K)FLUORANTHENE	5							
BN	BIS(2-CHLOROETHOXY)METHANE	5							
BN	BIS(2-CHLOROETHYL)ETHER	6							
BN	BIS(2-CHLOROISOPROPYL)ETHER	6							
BN	BIS(2-ETHYLHEXYL)PHTHALATE	10							
BN	BUTYLBENZYL PHTHALATE	5							
BN	CHRYSENE	5							
BN	DI-N-BUTYL PHTHALATE	5							
BN	DI-N-OCTYL PHTHALATE	5							
BN	DIBENZO(A,H)ANTHRACENE	5							
BN	DIETHYL PHTHALATE	5							
BN	DIMETHYL PHTHALATE	5							
BN	FLUORANTHENE	5							

Maine Department of Environmental Protection
 WET and Chem

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BN	FLUORENE	5													
BN	HEXACHLOROBENZENE	5													
BN	HEXACHLOROBUTADIENE	5													
BN	HEXACHLOROCYCLOPENTADIENE	10													
BN	HEXACHLOROETHANE	5													
BN	INDENO(1,2,3-CD)PYRENE	5													
BN	ISOPHORONE	5													
BN	N-NITROSODI-N-PROPYLAMINE	10													
BN	N-NITROSODIMETHYLAMINE	5													
BN	N-NITROSODIPHENYLAMINE	5													
BN	NAPHTHALENE	5													
BN	NITROBENZENE	5													
BN	PHENANTHRENE	5													
BN	PYRENE	5													
P	4,4'-DDD	0.05													
P	4,4'-DDE	0.05													
P	4,4'-DDT	0.05													
P	A-BHC	0.2													
P	A-ENDOSULFAN	0.05													
P	ALDRIN	0.15													
P	B-BHC	0.05													
P	B-ENDOSULFAN	0.05													
P	CHLORDANE	0.1													
P	D-BHC	0.05													
P	DIELDRIN	0.05													
P	ENDOSULFAN SULFATE	0.1													
P	ENDRIN	0.05													
P	ENDRIN ALDEHYDE	0.05													
P	G-BHC	0.15													
P	HEPTACHLOR	0.15													
P	HEPTACHLOR EPOXIDE	0.1													
P	PCB-1016	0.3													
P	PCB-1221	0.3													
P	PCB-1232	0.3													
P	PCB-1242	0.3													
P	PCB-1248	0.3													
P	PCB-1254	0.3													
P	PCB-1260	0.2													
P	TOXAPHENE	1													
V	1,1,1-TRICHLOROETHANE	5													
V	1,1,1,2-TETRACHLOROETHANE	7													
V	1,1,2-TRICHLOROETHANE	5													
V	1,1-DICHLOROETHANE	5													
V	1,1-DICHLOROETHYLENE (1,1-dichloroethene)	3													
V	1,2-DICHLOROETHANE	3													
V	1,2-DICHLOROPROPANE	6													
V	1,2-TRANS-DICHLOROETHYLENE (1,2-trans-dichloroethene)	5													
V	1,3-DICHLOROPROPYLENE (1,3-dichloropropene)	5													
V	2-CHLOROETHYL VINYL ETHER	20													
V	ACROLEIN	NA													
V	ACRYLONITRILE	NA													
V	BENZENE	5													

**Maine Department of Environmental Protection
WET and Chem**

This form is for reporting laboratory data and facility information. Official compliance reviews will be done by DEP.

V	BROMOFORM	5								
V	CARBON TETRACHLORIDE	5								
V	CHLOROBENZENE	6								
V	CHLORODIBROMOMETHANE	3								
V	CHLOROETHANE	5								
V	CHLOROFORM	5								
V	DICHLOROBROMOMETHANE	3								
V	ETHYLBENZENE	10								
V	METHYL BROMIDE (Bromomethane)	5								
V	METHYL CHLORIDE (Chloromethane)	5								
V	METHYLENE CHLORIDE	5								
V	TETRACHLOROETHYLENE (Perchloroethylene or Tetrachloroethene)	5								
V	TOLUENE	5								
V	TRICHLOROETHYLENE (Trichloroethene)	3								
V	VINYL CHLORIDE	5								

Notes:

- (1) Flow average for day pertains to WET/PP composite sample day.
- (2) Flow average for month is for month in which WET/PP sample was taken.
- (3) Analytical chemistry parameters must be done as part of the WET test chemistry.
- (3a) Cyanide, Available (Cyanide Amenable to Chlorination) is not an analytical chemistry parameter, but may be required by certain discharge permits .
- (4) Priority Pollutants should be reported in micrograms per liter (ug/L).
- (5) Mercury is often reported in nanograms per liter (ng/L) by the contract laboratory, so be sure to convert to micrograms per liter on this spreadsheet.
- (6) Effluent Limits are calculated based on dilution factor, background allocation (10%) and water quality reserves (15% - to allow for new or changed discharges or non-point sources).
- (7) Possible Exceedence determinations are done for a single sample only on a mass basis using the actual pounds discharged. This analysis does not consider watershed wide allocations for fresh water discharges.
- (8) These tests are optional for the receiving water. However, where possible samples of the receiving water should be preserved and saved for the duration of the WET test. In the event of questions about the receiving water's possible effect on the WET results, chemistry tests should then be conducted.
- (9) pH and Total Residual Chlorine must be conducted at the time of sample collection. Tests for Total Residual Chlorine need be conducted only when an effluent has been chlorinated or residual chlorine is believed to be present for any other reason.

Comments:

ATTACHMENT E

**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")								EVENT OVERFLOW GALLONS	EVENT DURATION HRS
		TOTAL INCHES	MAX. HR. INCHES	LOCATION: NUMBER:	LOCATION: NUMBER:	LOCATION: NUMBER:	LOCATION: NUMBER:	LOCATION: NUMBER:	LOCATION: NUMBER:	LOCATION: NUMBER:	LOCATION: NUMBER:		
1													
2													
3													
4													
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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.

**MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
WASTE DISCHARGE LICENSE**

PROPOSED DRAFT FACT SHEET

Date: **August 15, 2016**

MEPDES PERMIT: **ME0101117**
WASTE DISCHARGE LICENSE: **W002599-6D-K-R**

NAME AND ADDRESS OF APPLICANT:

**CITY OF SACO
300 MAIN STREET
SACO, ME 04072**

COUNTY: **YORK**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

**68 FRONT STREET
SACO, MAINE 04072**

RECEIVING WATER / CLASSIFICATION: **SACO RIVER/CLASS SC & B
BEAR BROOK/CLASS B**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER:

**MR. HOWARD CARTER, DIRECTOR
WATER RESOURCE RECOVERY DEPT.
(207) 282-3564
hcarte@sacomaine.org**

1. APPLICATION SUMMARY

- a. On March 4, 2016, the Department of Environmental Protection (Department) accepted as complete for processing an application from the City of Saco (Saco) for renewal of combination Waste Discharge License (WDL) # W002599-6D-H-R / Maine Pollutant Discharge Elimination System (MEPDES) permit # ME0101117, which was issued by the Department on August 8, 2011 for a five-year term. The August 8, 2011 permit authorized the monthly average discharge of 4.2 million gallons per day (MGD) of secondary treated sanitary wastewater from a publicly owned treatment works (POTW) to the tidal portion of the Saco River, Class SC, in Saco, Maine.

The 8/8/11 MEPDES permit also allowed Saco to discharge an unspecified quantity of primary treated municipal wastewater from a POTW and an unspecified quantity of untreated combined sanitary and storm water from four (4) combined sewer overflow (CSO) outfalls. Three CSO's discharge to the Saco River (two to Class SC waters and one to Class B water), and one CSO discharges to Bear Brook, Class B.

2. PERMIT SUMMARY

- a. Terms and conditions

This permitting action is different from the August 8, 2011 permit in that it:

For Secondary Treated Wastewater (Outfall #001A)

1. Incorporates monitoring and reporting requirements for the interim mercury limitations established by the Department for this facility 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);
2. Reduces the monitoring and reporting requirement for biochemical oxygen demand (BOD₅) and total suspended solids (TSS) from 3/Week to 2/Week;
3. Amends the whole effluent toxicity (WET) screening monitoring period from 12 months prior to permit expiration to 24 months prior to permit expiration;
4. Eliminates the monthly average limit for inorganic arsenic and reporting condition for total arsenic based on the results of facility testing;
5. Incorporates an Industrial Waste Survey (IWS) into Special Condition F. *Limitations for Industrial Users*;
6. Establishes a BOD₅ and TSS maximum daily concentration reporting condition when a bypass of secondary treatment is active;

2. PERMIT SUMMARY (cont'd)

7. Reduces the monitoring and reporting requirement for pH from 1/Day to 3/Week;

For Primary Treated Wastewater (Outfall #001B)

8. Eliminates BOD₅ and TSS percent removal monitoring and reporting requirements;

9. Establishes a reporting condition for minimum influent flow rate; and

10. Establishes daily maximum mass limits for BOD₅ and TSS to comply with U.S. Environmental Protection Agency (USEPA) CSO Control Policy and Clean Water Act section 402(q)(1).

b. History: The most recent relevant licensing and permitting actions include the following:

June 25, 1996 – The Department issued WDL #W002599-46-C-R for a five-year term.

September 30, 1996 – The USEPA issued a renewal of National Pollutant Discharge Elimination System (NPDES) permit #ME0101117 for a five-year term.

May 23, 2000 – The Department administratively modified the 6/25/96 WDL to establish interim average and maximum concentration limits for mercury.

January 12, 2001 – The State of Maine received authorization from the USEPA to administer the NPDES permitting program. From that date forward, the permitting program has been referred to as the MEPDES permit program and permit #ME0101117 (same as the NPDES permit number) has been used as the primary reference number for the Saco facility.

July 5, 2001 – The Department issued combination MEPDES permit #ME0101117/WDL #W002599-5L-E-R for a five-year term.

March 15, 2006 – The City submitted a toxicity reduction evaluation (TRE) for the sea urchin. The TRE was reviewed and approved by the Department.

April 10, 2006 – The Department issued a modification of the 7/5/01 MEPDES permit by incorporating the testing requirement associated with the Department's rule, Chapter 530, *Surface Water Toxics Control Program* promulgated in October of calendar year 2005.

August 14, 2006 – The Department issued combination MEPDES permit #ME0101117/WDL #W002599-5L-F-R for a five-year term.

August 8, 2011 – The Department issued combination MEPDES permit #ME0101117/WDL #W002599-6D-H-R for a five-year term.

2. PERMIT SUMMARY (cont'd)

September 11, 2013 – The Department issued a modification to the August 8, 2011 MEPDES permit by eliminating the monthly average mass limit and monitoring requirement for inorganic arsenic and the monitoring and reporting requirement for total arsenic.

March 3, 2016 – The permittee submitted a timely and complete General Application to the Department for renewal of the August 8, 2011 permit (including subsequent minor permit revisions and permit modifications). The application was accepted for processing on March 4, 2016 and was assigned WDL #W002599-6D-K-R / MEPDES #ME0101117.

- c. **Source Description:** The facility located on Front Street in Saco treats domestic, industrial, and commercial wastewater. No significant industrial users (contributing more than 10% of the volume of wastewater received by the treatment facility) are currently contributing to the waste stream, but there is one industry for which pretreatment of wastewater is required and monitored by Saco (General Dynamics Armament and Technical Products-80,000 gpd of pretreated ground water and industrial process wastewater).

The City maintains a combined sewage collection system with four CSO points (see Special Condition K of this permitting action). The City has on-site generators at the following pump stations: Bayview, Bear Brook, Brookside, Buxton Road, Camp Ellis, Cascade Brook, Hillview I, Industrial Park, Marshwood, Millbrook, Pine Ridge, Ross Ridge, Ryan Farms, Strawberry Fields, Wildwood and Windy Point. The City also has three portable generators at the remaining stations. The treatment facility has an on-site emergency generator as well.

The previous WDL authorized the City to receive up to 7,000 gallons per day (gpd) of transported wastes. It is noted the facility receives and treats up to 100,000 gpd of low strength wastewater from a drinking water bottling plant that is not, by definition, considered to be transported waste. The permittee submitted a Septage Management Plan with their 2016 application for permit renewal.

A map showing the location of the facility and the receiving water is included as Fact Sheet **Attachment A**.

- d. **Wastewater Treatment:** The Saco Wastewater Treatment Plant is a conventional activated sludge facility built in 1971 to treat an average daily flow of 1.57 MGD. The facility underwent major modifications in 1988 to increase the average daily flow to 4.2 MGD, capable of treating a peak flow of 8.4 MGD. The treatment plant completed an upgrade in 2006 which incorporated treatment of an additional 5.6 MGD of storm water. In 2009, a major upgrade was started which included building a new process building and garage. This upgrade allowed for more automation through the Supervisory Control and Data Acquisition (SCADA) system.

2. PERMIT SUMMARY (cont'd)

Wastewater entering the plant is primarily of a domestic and commercial origin with only a small percentage of the total flow being industrial. The plant is designed to treat an average BOD loading of 7,006 pounds per day (lbs./day) and an average suspended solids (SS) loading of 5,605 lbs./day. Normal efficiency is expected to be in the range of 85% to 90% removal of BOD and TSS. The plant has been designed to meet the discharge permit which requires a monthly average effluent BOD and TSS not to exceed a concentration of 30 mg/l.

The original collection system serviced the downtown areas of the city from Factory Island to the Maine Turnpike to Interstate 195. The collection system has been extended to include these major areas of the city; Windy Point, Camp Ellis, Bay View, Kinney Shores, Factory Island and Route One North. The entire collection system consists of interceptor and collection gravity sewers and 29 pump stations and force mains.

The collection system transports the wastewater to the treatment plant; the flow enters a diversion structure that only allows 8 MGD to enter the treatment plant. All additional flow is diverted to the Grit King which removes grit, rags and debris. The Grit King pumps the grit, rags and debris back to the treatment plant headworks. The effluent of the Storm King flow receives chlorination and de-chlorination constituting primary treatment. The flow up to 8 MGD that enters the treatment plant flows by gravity into the headworks, which consist of a fine screen separator and a grit removal system. Total influent flow is measured with an ultrasonic flow sensor calibrated for use with a Parshall flume. The wastewater flow then enters a primary clarifier; the primary sludge is pumped into a sludge holding tank and the primary effluent enters an aeration splitter box. The flow is split between three aeration tanks, depending which aeration tanks are online. The aeration tanks are where the biological portion of the treatment process takes place. The first portion of the aeration tank is an anoxic zone, which allows for denitrification to occur. Following aeration the wastewater is settled in two secondary clarifiers. Sludge from both clarifiers are combined and returned to the aeration splitter box, wasted to the waste activated sludge holding tank. The thickened sludge is blended with the primary sludge and scum from all three clarifiers in a thickened sludge holding tank. The sludge is then pumped to a dewatering mechanism which dries the solids and then conveys to a can for final disposal. Chlorine solution is added to the final effluent prior to the chlorine contact tank. Sodium bisulfite is added in the de-chlorination chamber to remove any chlorine residual prior to final effluent discharge.

See **Attachment B** of this Fact Sheet for a facility schematic.

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 the 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, *Certain deposits and discharges prohibited*, 38 M.R.S. § 420 and Department rule *Surface Water Toxics Control Program*, 06-096 CMR 530 (effective March 21, 2012), require the regulation of toxic substances not to exceed levels set forth in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584 (effective July 29, 2012), 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 major river basins, 38 M.R.S. § 469(8)(E)(2) classifies the Saco River at the point of discharge for Outfalls #001A, #001B, and CSO's #003 and #006 (Tidal waters of the Saco River and its tidal tributaries lying westerly of longitude 70°-22'-54"W) as Class SC. *Standards for classification of fresh surface waters*, 38 M.R.S. § 465-B(3) describes the standards for Class SC waters.

38 M.R.S. § 467(12)(A)(11) classifies the Saco River at the point of discharge for CSO Outfall # 007 (Water St.) (from the Interstate 95 bridge to tidewater) as Class B.

38 M.R.S. § 468(9) classifies Bear Brook (which flows into Goosefare Brook) at the point of discharge for CSO Outfall # 009 (Those waters draining directly or indirectly into tidal waters of York County, with the exception of the Saco River Basin, the Salmon Falls River Basin and the Mousam River Basin) as Class B. 38 M.R.S. § 465(3) describes the standards for Class B waters.

5. RECEIVING WATER QUALITY CONDITIONS

The *State of Maine 2012 Integrated Water Quality Monitoring and Assessment Report*, prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act lists the following discharges as such:

The Saco River mainstem between the Little Ossipee River and tidewater (Class B) is listed as Category 2: Rivers and Streams Attaining Some Designated Uses – Insufficient Information for Other Uses (Assessment Unit ID ME0106000211_619R). The Saco River at Biddeford-Saco (Class B) is listed as Category 4-A: Rivers and Streams with Impaired Use other than mercury, Total Maximum Daily Load (TMDL) Completed (Assessment Unit ID ME0106000211_619R01) for bacteria (*E. coli*).

Bear Brook at the point of the CSO discharge “Tributary to Goosefare Brook” is listed under Category 4-A: Rivers and Streams with Impaired Use other than mercury, Total Maximum Daily Load (TMDL) Completed, for *E.coli* (Assessment Unit ID ME0106000106_616R04).

5. RECEIVING WATER QUALITY CONDITIONS (cont'd)

The Saco River Estuary is listed under Category 4-A: Estuarine and Marine Waters with Impaired Use, TMDL Completed for elevated fecal levels. The TMDL was approved in 2009. The estuary is also listed under Category 5-A: Estuarine and Marine Waters Impaired by Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required). The Impaired Use is listed as Marine Life Use Support.

The Maine Department of Marine Resources (MEDMR) Pollution Area #10 (See **Attachment D** of this Fact Sheet) *Saco River and Saco Bay (Biddeford, Saco, Old Orchard Beach)* is currently closed to the harvesting of shellfish. The MEDMR closes or restricts areas based on ambient water quality data that indicate the area did not meet or marginally met the standards in the National Shellfish Sanitation Program. In addition, MEDMR closes areas by default in the vicinity of outfall pipes associated with treated sanitary wastewater discharges in the event of a failure of the disinfection system.

The City of Saco entered into a Memorandum of Understanding (MOU) with MEDMR on July 7, 2016 to establish a communication protocol in the event of a treatment bypass. The MOU details the procedure for the immediate notification of a treatment bypass by the City so that MEDMR may appropriately assess impacts to shellfish harvesting areas.

The Report lists all of Maine's fresh waters as, "Category 4-A: Waters Impaired by Atmospheric Deposition of Mercury." Impairment in this context refers to a statewide fish consumption advisory due to elevated levels of mercury in some fish tissues. The Report states, "All freshwaters are listed in Category 4A (TMDL Completed) due to USEPA approval of a Regional Mercury TMDL." Maine has a fish consumption advisory for fish taken from all freshwaters due to mercury. Many fish from any given waters do not exceed the action level for mercury. However, because it is impossible for someone consuming a fish to know whether the mercury level exceeds the action level, the Maine Department of Health and Human Services decided to establish a statewide advisory for all freshwater fish that recommends limits on consumption.

Maine has already instituted statewide programs for removal and reduction of mercury sources. Pursuant to 38 M.R.S. § 420(1-B)(B), "a facility is not in violation of the ambient criteria for mercury if the facility is in compliance with an interim discharge limit established by the Department pursuant to section 413 subsection 11." The Department has established interim monthly average and daily maximum mercury concentration limits and reporting requirements for this facility pursuant to 06-096 CMR 519.

5. RECEIVING WATER QUALITY CONDITIONS (cont'd)

Saco has developed and implemented a CSO Master Plan for the elimination of all CSO points associated with the Saco POTW. The Department acknowledges that elimination of all CSO points is a costly and long-term project. As Saco’s treatment plant and sewer collection system are upgraded and maintained in according to the CSO Master Plan and Nine Minimum Controls, there will be reductions in the frequency and volume of CSO and primary treatment activities and, over time, improvement in the quality of the wastewater discharged to the receiving waters. Compliance with the limitations established in the permit ensure that the discharge of treated wastewater will not cause or contribute to exceedance of water quality standards.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

- a. Flow: The previously established monthly average discharge flow limitation of 4.2 MGD is being carried forward in this permitting action.

The Department reviewed 53 Discharge Monitoring Reports (DMRs) that were submitted for the period of September 1, 2011 through March 1, 2016. A review of data indicates the following:

Flow

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly Average	4.2	1.34 – 3.53	2.1
Daily Maximum	Report	1.46 – 9.24	4.6

- b. Dilution Factors: The Department established applicable dilution factors for the discharge in accordance with protocols established in *Surface Water Toxics Control Program*, 06-096 CMR 530 (last amended March 21, 2012). With a monthly average flow limit of 4.2 MGD, dilution factors for the facility are as follows.

Using plan and profile information previously submitted to the Department by the permittee and the CORMIX model, the Department has determined the dilution factors for the discharge of 4.2 MGD from the wastewater treatment facility are as follows:

Acute = 7.0:1 Chronic = 17.5:1 Harmonic mean = 52.5:1

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 USEPA 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 & MONITORING REQUIREMENTS (cont'd)

- c. **BOD₅ and TSS:** Previous permitting action established, and this permitting action is carrying forward, monthly average and weekly average BOD₅ and TSS concentration limits of 30 milligrams per liter (mg/L) and 45 mg/L, respectively, which were based on secondary treatment requirements pursuant to 40 CFR 133.102 and 06-096 CMR 525(3)(III). Previous permitting action also established, and this permitting action is carrying forward, daily maximum BOD₅ and TSS concentration limits of 50 mg/L based on a Department best professional judgment (BPJ) of BPT for secondary treated wastewater. All three concentration limitations are being carried forward in this permitting action.

The previous permitting action established monthly average and weekly average mass limits based on a monthly average limit of 4.2 MGD, which are being carried forward in this permitting action. No daily maximum mass limitations (report only) for BOD₅ or TSS were established in previous permitting action as doing so may discourage Saco from treating as much wastewater as possible during wet weather events.

Mass limitations were derived as follows:

Monthly Average	(30 mg/L)(8.34 lbs./gallon)(4.2 MGD) =	1,050 lbs./day
Weekly Average	(45 mg/L)(8.34 lbs./gallon)(4.2 MGD) =	1,576 lbs./day

This permitting action is also carrying forward the requirement for a minimum of 85% removal of BOD₅ & TSS pursuant to 06-096 CMR 525(3)(III)(a)(3) and (b)(3).

A summary of BOD₅ data as reported on the DMRs submitted to the Department for the period of September 1, 2011 – March 1, 2016 is as follows:

BOD₅ Mass

Value	Limit (lbs./day)	Range (lbs./day)	Average (lbs./day)
Monthly Average	1,050	48 – 723	142
Weekly Average	1,576	48 – 2,216	293
Daily Maximum	Report	77 – 4,779	492

BOD₅ Concentration

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	3 - 19	7
Weekly Average	45	4 - 48	7
Daily Maximum	50	5 - 113	15

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

A summary of TSS data as reported on the DMRs (n = 53) submitted to the Department for the period of September 1, 2011 – March 1, 2016 is as follows:

TSS Mass

Value	Limit (lbs./day)	Range (lbs./day)	Average (lbs./day)
Monthly Average	1,050	27 – 682	91
Weekly Average	1,576	36 – 2,889	233
Daily Maximum	Report	45 – 7,232	444

TSS Concentration

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	2 – 17	4
Weekly Average	45	2 – 65	8
Daily Maximum	50	3 – 171	13

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 USEPA 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 USEPA’s 1996 Guidance recommends evaluation of the most current two years of effluent data for a parameter, the Department is considering 53 months of data (September 1, 2011 – March 1, 2016). A review of the mass monitoring data for BOD₅ & TSS indicates the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as 14% for BOD₅ and 9% for TSS. According to Table I of the USEPA Guidance and Department Guidance, the monitoring requirement can be reduced to 1/Week for BOD₅ and TSS. However, taking into consideration both the USEPA and Department Guidance, this permitting action is reducing the monitoring frequency for BOD₅ and TSS from 3/Week to 2/Week.

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

- d. Settleable Solids: The previous permitting action established a daily maximum concentration limit of 0.3 milliliters per liter (mL/L) for settleable solids and is considered by the Department as a BPJ of BPT for secondary treated wastewater. A review of the DMR data for the period of September 1, 2011 through March 1, 2016 (n = 53) indicates the daily maximum settleable solids concentration values ranged from 0.00 mL/L to 0.30 mL/L. This permitting action is maintaining the current monitoring frequency of 5/Week as the monitoring requirement was reduced in the previous permit.
- e. Fecal Coliform Bacteria: The previous permitting action established, and this permitting action is carrying forward, monthly average and daily maximum concentration limits of 15 colonies/100 ml and 50 colonies/100 ml, respectively, for fecal coliform bacteria, which are consistent with the National Shellfish Sanitation Program. Bacteria limits are applicable year round to protect the health, safety and welfare of the public.

A summary of effluent fecal coliform bacteria data as reported on the DMRs for the period September 2011 through March 2016 (applicable months only) follows:

Fecal coliform bacteria (DMR = 53)

Value	Limit (col/100 mL)	Range (col/100 mL)	Mean (col/100 mL)
Monthly Average	15	1 – 5	2
Daily Maximum	50	2 – >201	27

This permitting action is carrying forward the minimum monitoring frequency requirement for fecal coliform bacteria of three times per week (3/week).

- f. Total Residual Chlorine (TRC): The previous permitting action established a daily maximum water quality-based concentration limit of 0.091 mg/L as well as a minimum monitoring frequency requirement of once per day at all times during the year. This permitting action is carrying forward the monitoring frequency of 1/Day. The Department specifies TRC limitations in order to ensure that ambient water quality standards are maintained and that BPT technology is being applied to the discharge. The Department imposes the more stringent of either water quality-based or BPT-based limits. End-of-pipe acute and chronic water quality-based concentration thresholds may be calculated as follows:

Criteria	Dilution Factors	Calculated Threshold
Acute 0.013 mg/L	7.0:1	0.091 mg/L
Chronic 0.0075 mg/L	17.5:1	0.13 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. This permitting action is carrying forward the daily maximum water quality-based concentration limit of 0.091 mg/L as it is more stringent than the BPT-based thresholds of 1.0 mg/L.

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

A summary of TRC data as reported on the monthly DMRs (n = 53) for the period of September 1, 2011 – March 1, 2016 is as follows:

TRC

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	0.091	0.02 – 0.11	0.05

For effluent discharged from Outfall #001B, this permitting action is establishing a TRC daily maximum limit of 1.0 mg/L to comply with USEPA’s CSO Control Policy and Clean Water Act section 402(q)(1).

- g. **pH:** The previous permitting action established a technology based pH range limitation of 6.0 – 9.0 standard units pursuant to 06-096 CMR 525(3)(III)(c) along with a monitoring frequency of 1/Day, both of which are being carried forward in this permitting action. A review of the DMR data for the period of September 1, 2011 – March 1, 2016 (n = 53) indicates the pH range was 6.0 – 7.4 standard units. Based on the results of facility testing, this permitting action is reducing the monitoring requirement from 1/Day to 3/Week.

Whole Effluent Toxicity, Priority Pollutant, and Analytical Chemistry 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. 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 included as Attachment D of the permit. Analytical chemistry refers to those pollutants listed under “Analytical Chemistry” on the form included as Attachment D of the permit.

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

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 exceedences of narrative or numerical water quality criteria.

Saco 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 dischargers subject to the toxics rule into one of four levels (Levels 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 $\geq 20:1$ but <100:1.
Level III	Chronic dilution factor $\geq 100:1$ but <500:1 or >500:1 and $Q \geq 1.0$ MGD
Level IV	Chronic dilution factor >500:1 and $Q \leq 1.0$ MGD

Based on the criteria, the permittee's facility is considered a Level I discharger as the chronic dilution of the receiving water is < 20:1. 06-096 CMR 530(2)(D) specifies routine WET, priority pollutant, and analytical chemistry test schedules for Level I dischargers as follows.

Surveillance level testing

Level	WET Testing	Priority pollutant testing	Analytical chemistry
I	2 per year	Not Required	4 per year

Screening level testing

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

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

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.

h. WET: 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 exceedence of water quality criteria, appropriate water quality-based limits must be established in any licensing action.

On March 1, 2016, the Department conducted a statistical evaluation on the most recent 60 months of WET test results on file with the Department for the Saco POTW in accordance with the statistical approach outlined above. The 3/1/16 statistical evaluation indicates the discharge from Saco has not exceeded or demonstrated a reasonable potential to exceed the critical acute or chronic ambient water quality thresholds for the mysid shrimp or sea urchin. See **Attachment E** of this Fact Sheet for a summary of the WET test results.

06-096 CMR 530(2)(D)(3)(b) states, "Chapter 530(2)(D)(3)(d) states in part that for Level I facilities "... may reduce surveillance testing to one WET or specific chemical series per year provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedance...."

Based on the provisions of 06-096 CMR 530 and Department best professional judgment, this permitting action is carrying forward the reduced surveillance level WET testing requirements for this facility. Special Condition L. *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 & MONITORING REQUIREMENTS (cont'd)

i. 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 shall 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)(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 exceedence of water quality criteria, appropriate water quality-based limits must be established in any licensing action."

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."

On March 8, 2016, the Department conducted a statistical evaluation of the most recent 60 months of chemical-specific test results on file with the Department. The evaluation indicates that the discharge does not exceed or demonstrate a reasonable potential to exceed the critical ambient water quality criteria (AWQC) for any pollutants. See **Attachment F** of this Fact Sheet for test dates and results for the pollutants of concern.

Based on the provisions in 06-096 CMR 530 and Department BPJ, this permitting action is continuing with reduced surveillance level analytical chemistry testing requirements for this facility.

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

- j. Mercury: Pursuant to 38 M.R.S. § 420 and 38 M.R.S. § 413 and 06-096 CMR 519, the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying WDL #W002599-46-C-R by establishing interim monthly average and daily maximum effluent concentration limits of 8.1 parts per trillion (ppt) and 12.1 ppt, respectively, and a minimum monitoring frequency requirement of 4 tests per year for mercury.

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 database for the period February 2009 through May 2015 is as follows:

Mercury (n = 14)

Value	Limit (ng/L)	Range (ng/L)	Mean (ng/L)
Monthly Average	8.1	1.18 – 3.70	1.8
Daily Maximum	12.1		

On February 6, 2012, the Department issued a minor revision to the August 8, 2011 permit thereby revising the minimum monitoring frequency requirement from four times per year to once per year pursuant to 38 M.R.S. § 420(1-B)(F). This minimum monitoring frequency is being carried forward in this permitting action.

- k. 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. To date, the permittee has not conducted total nitrogen testing on its discharge. The Department has 140 total nitrogen effluent values with an arithmetic mean of 17.2 mg/L collected from various municipally-owned treatment works that discharge to marine waters of the State. None of the facilities whose effluent data were used are specifically designed to remove total nitrogen. For the MEPDES permitting program, the Department considers 17.2 mg/L to be representative of total nitrogen discharge levels for all facilities providing secondary treatment that discharge to marine waters in the absence of facility specific data, and therefore 17.2 mg/L is being used as the total nitrogen discharge concentration from the Saco POTW. Additionally, due to the proximity of the City of Biddeford discharge, the Department has made the determination to assess the cumulative effects of Saco and Biddeford discharges.

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.

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

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. Three known surveys have been completed within the Saco River estuary to document presence/absence of eelgrass. The first survey occurred in the 1970's by Timson of the Maine Geological Survey, and the second (1993-1994) and third (2001-2002) by MEDMR. The Timson survey extended upstream as far as the head of tide dams in Saco and Biddeford, and delineated unvegetated intertidal and subtidal mudflats and freshwater marshes. In the 1993-1994 MEDMR survey, the nearest eelgrass (small, fringing beds) was mapped at the mouth of the Saco River estuary, approximately 6 km from the most downstream discharge point. In 2001-2002, the MEDMR mapped more extensive beds an additional 2 km beyond the 1993-1994 mapped fringing beds, in the shallows between land masses outside the mouth of the estuary. Although it is not known if the two MEDMR surveys extended as far upstream as the Saco discharge points, it is unlikely that any eelgrass would exist in proximity to the discharge points due to the low salinity of the ambient environment. Based on this mapping history and predicted absence of eelgrass in the vicinity of the outfall points, the use of 0.45 mg/L as a threshold value for dissolved oxygen as the indicator is appropriate for this estuary.

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 permittee's facility has a chronic near-field dilution of 17.5:1. Far field dilutions are significantly higher than the near-field dilution, ranging from 10 – 1,000 times higher, depending on the location of the outfall pipe and nature of the receiving waterbody. The permittee's facility discharges via a dual-port riser diffuser located approximately 7 feet below mean low water to the Saco River. The daily tidal exchange in the Saco is approximately 8.5 million cubic meters per day (based on a mean tidal range of 8.8 feet. This translates to a far field dilution of approximately 530:1 for the Saco discharge. For an assessment of the Biddeford and Saco discharges together, a far field dilution of 210:1 would be appropriate. Using this far-field dilution factor, the increase in total nitrogen concentration within the Saco River estuary as a result of the discharge is estimated to be 0.082 mg/L.

Total nitrogen concentrations in effluent = 17.2 mg/L

Far-field dilution factor = 210:1

In-stream concentration after dilution: $\frac{17.2 \text{ mg/L}}{210} = 0.082 \text{ mg/L}$

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

The Department and external partners have been collecting ambient total nitrogen data along Maine's coast. Few data points exist for the upper Saco River estuary and no other comparable estuaries exist in southern Maine with similarly sized watersheds and point source loads. As a result, the Department has access to limited site-specific data for this portion of the estuary. The Department has calculated a mean background concentration of 0.34 mg/L (n=5) based on surface water data collected near Head of Tide on the Saco River at four sites in September 2004 and 2011. Accompanying these five nitrogen values are dissolved oxygen profiles and transparency and surface chlorophyll *a* data, none of which indicate water quality degradation typical of eutrophication. More specifically, dissolved oxygen values approximated or slightly exceeded saturation, transparency values exceeded 2 m depth, and chlorophyll *a* values were less than 2 µg/L.

Based on the calculated ambient value for this receiving water, the estimated increase in ambient total nitrogen after reasonable opportunity for mixing in the far-field is 0.34 mg/L + 0.082 mg/L = 0.422 mg/L. The in-stream concentration value of 0.422 mg/L is less than the Department and USEPA's best professional judgment based total nitrogen threshold of 0.45 mg/L for the protection of aquatic life using dissolved oxygen as an indicator. Using the reasonable potential calculations above and in the absence of any information that the receiving water is not attaining standards, the Department is making a best professional judgment determination that the discharge of total nitrogen from the Saco POTW does not exhibit a reasonable potential to exceed applicable water quality standards for Class SC waters. This permitting action is not establishing limitations or monitoring requirements for total nitrogen, however, the permittee has agreed to participate in voluntary effluent sampling to further characterize their contribution to the Saco River estuary.

1. CSO-Related Bypass of Secondary Treatment (Outfall #001B-Primary Treated Wastewater): For those flows received at the treatment facility which are greater than that which can be treated to a secondary level of treatment, the Department has made a BPJ that primary treatment and disinfection constitutes appropriate BPT.

The monitoring requirements for the parameters in Special Condition A(3) of this permit (Flow, Overflow Occurrences, BOD₅, TSS, Fecal Coliform bacteria, TRC, and pH) are being carried forward in this permitting action. It is noted that this permitting action is not carrying forward the reporting conditions for BOD₅ and TSS percent removal based on Department BPJ that these technology-based metrics have not been particularly useful in assessing primary treatment system performance and are not necessary to ensure water quality standards are met.

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

A review of the DMR data for the period September 2011 - January 2016 indicates the following:

Overflow occurrences

Year	Limit (# of days)	Total (# of days)
2011	Report	5
2012	Report	13
2013	Report	11
2014	Report	13
2015	Report	2

Flow - Total Gallons/Month

Year	Limit (MG)	Range (MG)	Total (MG)
2011	Report	0.021 - 0.456	0.564
2012	Report	0.07 - 11.016	22.209
2013	Report	0.059 - 0.818	2.432
2014	Report	0.118 - 1.931	6.29
2015	Report	0.687 - 1.24	1.927

Flow - Daily Maximum Gallons

Year	Limit (MGD)	Range (MGD)	Total (MGD)
2011	Report	0.021 - 0.446	0.554
2012	Report	0.07 - 5.640	14.569
2013	Report	0.048 - 0.633	2.208
2014	Report	0.118 - 1.913	5.533
2015	Report	0.687 - 1.24	1.927

Fecal coliform bacteria

Value	Limit (col/100 mL)	Range (col/100 mL)	Mean (col/100 mL)
Daily Maximum	200	15 - 816	196

TRC

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	1.0	0.00 - 0.19	0.05

pH

Value	Limit (mg/L)	Range (mg/L)
Daily Maximum	6.0 - 9.0	6.1 - 6.8

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

The permittee maintains a combined sewer system from which wet weather overflows occur. Section 402(q)(1) of the Clean Water Act requires that “each permit, order or decree issued pursuant to this chapter after December 21, 2000 for a discharge from a municipal combined storm and sanitary sewer must conform to the Combined Sewer Overflow Control Policy signed by the Administrator on April 11, 1994” 33 U.S.C. § 1342(q)(1). The Combined Sewer Overflow Control Policy (CSO Policy, 59 Fed. Reg. 18688-98), states that under USEPA’s regulations the intentional diversion of waste streams from any portion of a treatment facility, including secondary treatment, is a bypass and that 40 CFR 122.41(m), allows for a facility to bypass some or all the flow from its treatment process under specified limited circumstances. Under the regulation, the permittee must show that the bypass was unavoidable to prevent loss of life, personal injury or severe property damage, that there was no feasible alternative to the bypass and that the permittee submitted the required notices. The CSO Policy also provides that, for some CSO-related permits, the study of feasible alternatives in the control plan may provide sufficient support for the permit record and for allowance of a CSO-related bypass to be included in an NPDES permit.¹ Such approvals will be re-evaluated upon the reissuance of the permit, or when new information becomes available that would represent cause for modifying the permit.

The CSO Policy indicates that the feasible alternative threshold may be met if, among other things, “... the record shows the secondary treatment system is properly operated and maintained, that the system has been designed to meet secondary limits for flows greater than peak dry weather flow, plus an appropriate quantity of wet weather flow, and that it is either technically or financially infeasible to provide secondary treatment at the existing facilities for greater amounts of wet weather flow.”²

USEPA’s CSO Control Policy and CWA section 402(q)(1) provide that the CSO-related bypass provision in the permit should make it clear that all wet weather flows passing through the headworks of the POTW will receive at least primary clarification and solids and floatables removal and disposal, and disinfection, where necessary, and any other treatment that can reasonably be provided.³ Under section 402(q)(1) of the CWA and as stated in the CSO Policy, in any case, the discharge must not violate applicable water quality standards.⁴ The Department will evaluate and establish on a case-by-case basis effluent limitations for discharges that receive only a primary level of clarification prior to discharge and those bypasses that are blended with secondary treated effluent prior to discharge to ensure applicable water quality standards will be met.

¹ 59 Fed. Reg. 18,688, at 18,693 and 40 CFR Part 122.41(m)(4) (April 19, 1994).

² 59 Fed. Reg. at 18,694.

³ 59 Fed. Reg. at 18,693.

⁴ 59 Fed. Reg. at 18694, col 1 (April 19, 1994).

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

This permitting action allows a CSO-related bypass of secondary treatment at the Saco facility based on an evaluation of feasible alternatives, which indicates it is technically and financially infeasible at this time to provide secondary treatment at the existing facilities as summarized in the original CSO Master Plan.

During wet weather events when the flow rate through secondary treatment exceeds a peak hourly flow rate of 5,556 gpm (8.0 MGD), secondary treatment of all wet weather flows is not practicable. Flows delivered to the treatment facility in excess of that which can be given secondary treatment will receive solids removal via the Storm King, and then chlorination and de-chlorination prior to discharge (Outfall #001B).

This permitting action is establishing end-of-pipe limitations to comply with USEPA's CSO Control Policy and Clean Water Act section 402(q)(1).

The CSO Control Policy does not define specific design criteria or performance criteria for primary clarification. The Department and USEPA agree that existing primary treatment infrastructure was constructed to provide primary clarification, and that for facilities those facilities, compliance must be evaluated at the point of discharge, unless impractical or infeasible.⁵ Monitoring to assess compliance with limits is to be conducted following de-chlorination, or at end of pipe if possible.

Due to the variability of CSO-related bypass treatment systems and wet weather related influent quality and quantity, a single technology-based standard cannot be developed for all of Maine's CSO-related bypass facilities.⁶ To standardize how the Department will regulate these facilities to ensure compliance with the CSO Control Policy and CWA⁷, the Department has determined that limitations of primary treated effluent (the discharge of CSO-related bypass effluent) should be based on the more stringent of either the past demonstrated performance of the properly operated and maintained treatment system(s) or site-specific water quality-based limits derived from calculations or best professional judgment of Department water quality engineers of assimilative capacity of the receiving water.

The federal secondary treatment regulation does not contain daily maximum effluent limitations for BOD₅ and TSS. The Department established a daily maximum concentration limit of 50 mg/L for secondary treated wastewater as BPJ of BPT prior to NPDES delegation and promulgation of secondary treatment regulations into State rule that are consistent with the Clean Water Act. Following consultation with USEPA, the Department has chosen to waive the requirement to comply with numeric daily maximum concentration limitations for BOD₅ and TSS for days with CSO-related bypass events.

⁵ 40 CFR 122.45(h).

⁶ Maine currently has 16 permitted facilities with a CSO-related bypass.

⁷ In other words, that any other treatment that can reasonably be provided is, in fact, provided.

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

During CSO-related bypasses, the Saco facility is designed to provide primary clarification to any secondary bypass flows via removal and disposal of solids and floatables, and disinfection. The permittee is not able to achieve compliance with technology based effluent limits (TBELs) derived from the secondary treatment regulation during CSO-related bypasses (for primary-treated effluent, Outfall #001B). As part of its consideration of possible adverse effects resulting from the bypass, the Department must ensure that the bypass will not cause exceedance of water quality standards (See CSO Control Policy at 59 Fed. Reg. 18694).

For the discharge of primary-treated effluent to the Saco River via outfall #001B, the Department is establishing daily maximum technology-based effluent limitations for BOD₅ and TSS.

Analysis of Water Quality Impacts During Discharge of Primary and Secondary Effluent from Saco and Biddeford

- m. Flow, BOD₅ and TSS: Given the configuration of the treatment plant, the permittee has measured effluent flow, BOD, and TSS values for primary and secondary waste streams. To be conservative, the Department has chosen the day wherein the highest mass value for each parameter was recorded for the purposes of evaluating the impact to the Saco River during a previous wet weather event when primary and secondary effluent was discharged. The Department analyzed the most recent overflow occurrences from September 2011 through February 2016.

The daily tidal exchange in the Saco River estuary is approximately 8.5 million cubic meters per day (based on a mean tidal range of 8.8 feet). This translates to a far field dilution of approximately 530:1 for the Saco discharge (4.2 MGD). If we look at the Biddeford (6.5 MGD) and Saco discharges together, hydraulically, this would translate to a far field combined dilution factor of approximately 210:1. However, during wet weather events when the additional flows are being discharged from Saco, the dilution must again be adjusted. In the calculations below, adjustments for said flows are reflected in the dilution factor.

BOD

Saco

Highest Daily Maximum mass value for Secondary Effluent = 4,779 lbs. in December 2014

Secondary Effluent Flow = 7.89 MGD

Highest Daily Maximum mass value for Primary Effluent = 1,882 lbs. in June 2012

Primary Effluent Flow = 5.64 MGD

Total BOD discharge from Saco = 6,661 lbs. / 13.53 MGD

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

Biddeford

(Biddeford does not have a CSO bypass associated with their wastewater facility, therefore the Department used their maximum daily secondary limit.)

$50 \text{ mg/L} \times 8.34 \text{ (conversion factor)} \times 6.5 \text{ MGD (flow limit)} = 2710.5 \text{ lbs.}$
Secondary Flow Limit = 6.5 MGD

Combined BOD discharge (Saco and Biddeford)

Total BOD discharge from Saco = 6,661 lbs. / 13.53 MGD
Total BOD discharge from Biddeford = 2711 lbs. / 6.5 MGD
9,372 lbs. / 20.03 MGD

An addition of 20.03 MGD to the receiving water results in a dilution factor of 112:1.

$9,372 \div 8.34 \text{ (conversion factor)} = 1124 \div 20.03 \text{ (Flow, MGD)} = 56 \text{ mg/L}$

Therefore, the receiving water increase of BOD concentration given these conditions is:

$\frac{56}{112} = \mathbf{0.5 \text{ mg/L}}$ (< 2 mg/L is not measurable)

TSS

Saco

Highest Daily Maximum mass value for Secondary Effluent = 7,232 lbs. in December 2014
Secondary Effluent Flow = 7.89 MGD
Highest Daily Maximum mass value for Primary Effluent = 5,127 lbs. in June 2012
Primary Effluent Flow = 5.64 MGD

Total TSS discharge from Saco = 12,359 lbs. / 13.53 MGD

Biddeford

$50 \text{ mg/L} \times 8.34 \text{ (conversion factor)} \times 6.5 \text{ MGD (flow limit)} = 2711 \text{ lbs.}$
Secondary Flow Limit = 6.5 MGD

Combined TSS discharge (Saco and Biddeford)

Total TSS discharge from Saco = 12,359 lbs. / 13.53 MGD
Total TSS discharge from Biddeford = 2,711 lbs. / 6.5 MGD
15,070 lbs. / 20.03 MGD

An addition of 20.03 MGD to the receiving water results in a dilution factor of 112:1.

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

$$15,070 \div 8.34 \text{ (conversion factor)} = 1,807 \div 20.03 \text{ (Flow, MGD)} = 90 \text{ mg/L}$$

Therefore, the receiving water increase of TSS concentration given these conditions is:

$$\frac{90}{112} = \mathbf{0.8 \text{ mg/L}} \text{ (< 2 mg/L is not measurable)}$$

Establishing Primary Effluent Limits for Saco

BOD

If we assume, during a wet weather event, that the facility is discharging secondary-treated water at full permitted flow (4.2 MGD), and in compliance with the daily maximum TBEL-derived discharge limit (50 mg/L), then the Daily Maximum secondary effluent mass limit is:

$$4.2 \text{ MGD} \times 50 \text{ mg/L} \times 8.34 \text{ (conversion factor)} = 1,751.4 \text{ (1,751 lbs./day)}$$

The highest BOD value from primary-treated water in the previous five years was 1,881.5 (or 1,882) lbs./day (flow for that event was 5.64 MGD).

The combined mass from the secondary and primary would be 3,633 lbs./day. The combined flow for primary and secondary would be 9.84 MGD.

$$3,633 \div 8.34 \text{ (conversion factor)} = 436 \div 9.84 \text{ (Flow, MGD)} = \mathbf{44 \text{ mg/L}}$$

An addition of 9.84 MGD to the receiving water results in a dilution factor of 228:1.

Therefore, the increase of instream BOD concentration given these conditions is:

$$\frac{44}{228} = \mathbf{0.2 \text{ mg/L}} \text{ (< 2 mg/L is not measurable)}$$

TSS

If we follow the same methodology and assumptions for TSS as BOD, the following values apply:

$$4.2 \text{ MGD} \times 50 \text{ mg/L} \times 8.34 \text{ (conversion factor)} = 1,751.4 \text{ lbs./day (1,751 lbs./day)}$$

The highest TSS value from primary-treated water in the previous five years was 5,127 lbs./day (flow for that event was 5.64 MGD).

The combined mass from the secondary and primary is 6,878 lbs./day. The combined flow for primary and secondary is 9.84 MGD.

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

$$6,878 \div 8.34 \text{ (conversion factor)} = 825 \div 9.84 \text{ (Flow, MGD)} = \mathbf{84 \text{ mg/L}}$$

An addition of 9.84 MGD to the receiving water results in a dilution factor of 228:1

Therefore, the increase of instream TSS concentration given these conditions is:

$$\frac{84}{228} = \mathbf{0.4 \text{ mg/L}} \text{ (< 2 mg/L is not measurable)}$$

Based on the BOD₅ and TSS values (blended effluent) cited, the Department has made a best professional judgment, maximum primary effluent discharge limitations of **1,882** lbs./day for BOD₅ and **5,127** lbs./day for TSS established in this permit provides reasonable assurance that the discharge will not cause or contribute to a violation of an applicable water quality standard in the Saco River and complies with the State's antidegradation policy at 38 M.R.S. § 464(4)(F).

These limitations are based on new information concerning treatment system performance data as well as a revised and corrected methodology for regulating CSO-related bypasses in Maine. As such, the Department concludes that the new daily maximum effluent limitations listed above for BOD₅ and TSS for the discharge of primary and secondary blended effluents when the influent to the wastewater treatment facility exceeds a peak hourly flow rate of 5,556 gallons per minute (8.0 MGD) complies with the exceptions to antibacksliding at Section 402(o)(2)(B)(i) of the Clean Water Act. This permitting action is establishing monthly average and weekly average primary effluent mass reporting requirements for BOD₅ and TSS.

7. COMBINED SEWER OVERFLOWS

This permit contains the following combined sewer overflow point source discharges.

<u>Outfall #</u>	<u>Location</u>	<u>Receiving Water & Class</u>	
003	Main Street	Saco River	Class B
004	Front Street	Saco River	Class SC
006	Tappan Valley & Hall Ave.	Saco River	Class SC
008	Bear Brook Pump Station	Bear Brook	Class B

7. COMBINED SEWER OVERFLOWS (cont'd)

Combined Sewer Overflow Abatement 06-096 CMR 570 (repealed and replaced on February 5, 2000) establishes procedures for permittees with CSO discharges to evaluate current conditions, determine impacts, study control technologies, analyze financial concerns and prepare a master plan for a CSO program. The previous CSO Master Plan entitled *City of Saco CSO Abatement Master Plan Update* was submitted to the Department in October of 1995 and updated in April of 2001. The most recent Master Plan entitled *City of Saco CSO Abatement Master Plan Update* was received on May 31, 2016, modified on June 1, 2016 and approved by the Department on June 1, 2016.

Saco 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 waters. Special Condition K, *Combined Sewer Overflows*, of this 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 remaining CSOs in the collection system and the CSO-related bypass of secondary treatment is a costly, long-term project. As the Saco treatment facility and the sewer collection system is upgraded and maintained in according to the CSO Master Plan and Nine Minimum Controls, there will 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. 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 waterbody to meet standards for Class B or Class SC classification.

9. PUBLIC COMMENTS

Public notice of this application was made in the *Journal Tribune* newspapers on or about February 26, 2016. 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).

10. DEPARTMENT CONTACTS

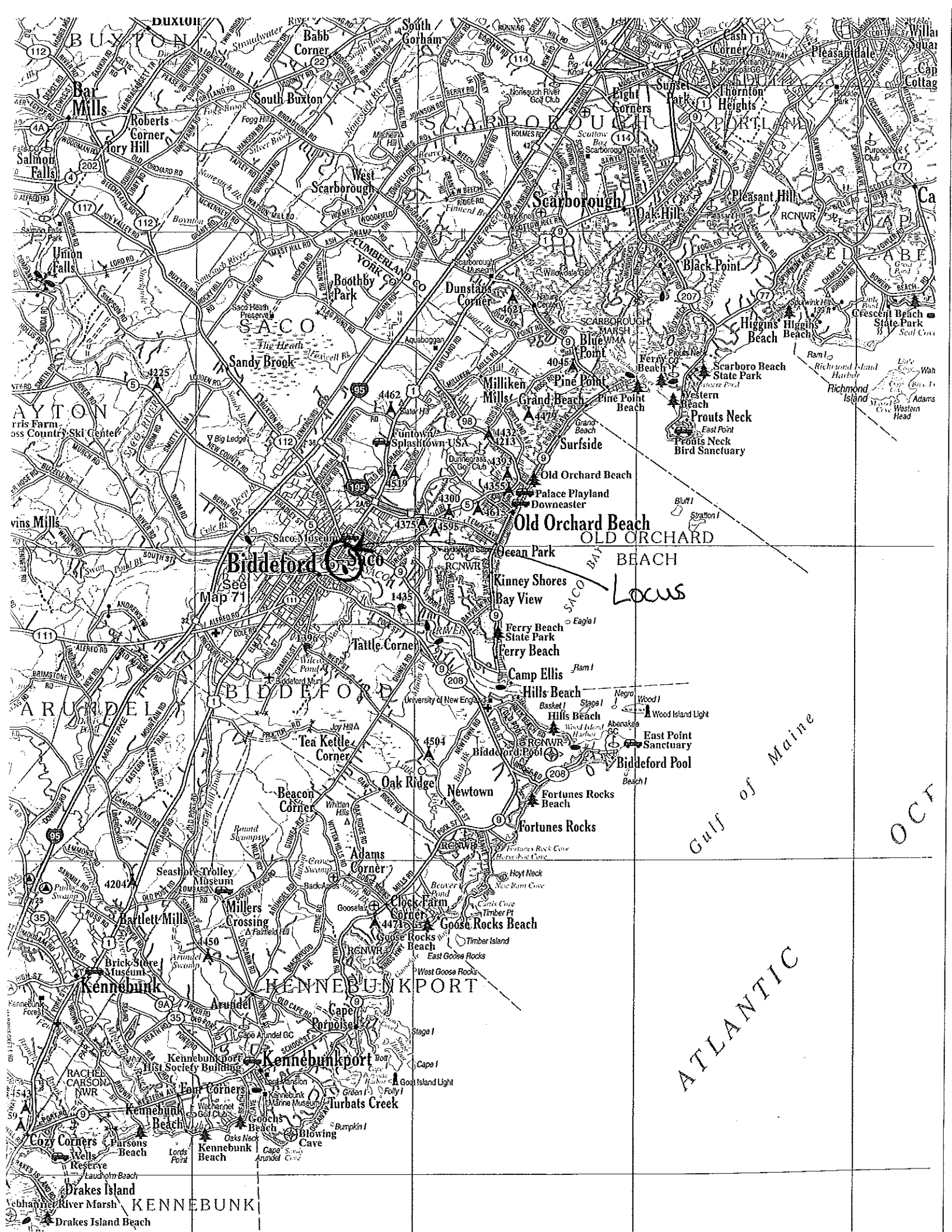
Additional information concerning this permitting action may be obtained from, and written comments sent to:

Cindy L. Dionne
Division of Water Quality Management
Bureau of Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 557-5950
e-mail: Cindy.L.Dionne@maine.gov

11. RESPONSE TO COMMENTS

Reserved until the end of the formal 30-day public comment period.

ATTACHMENT A



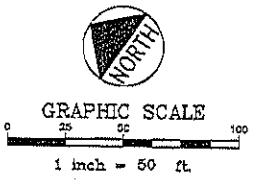
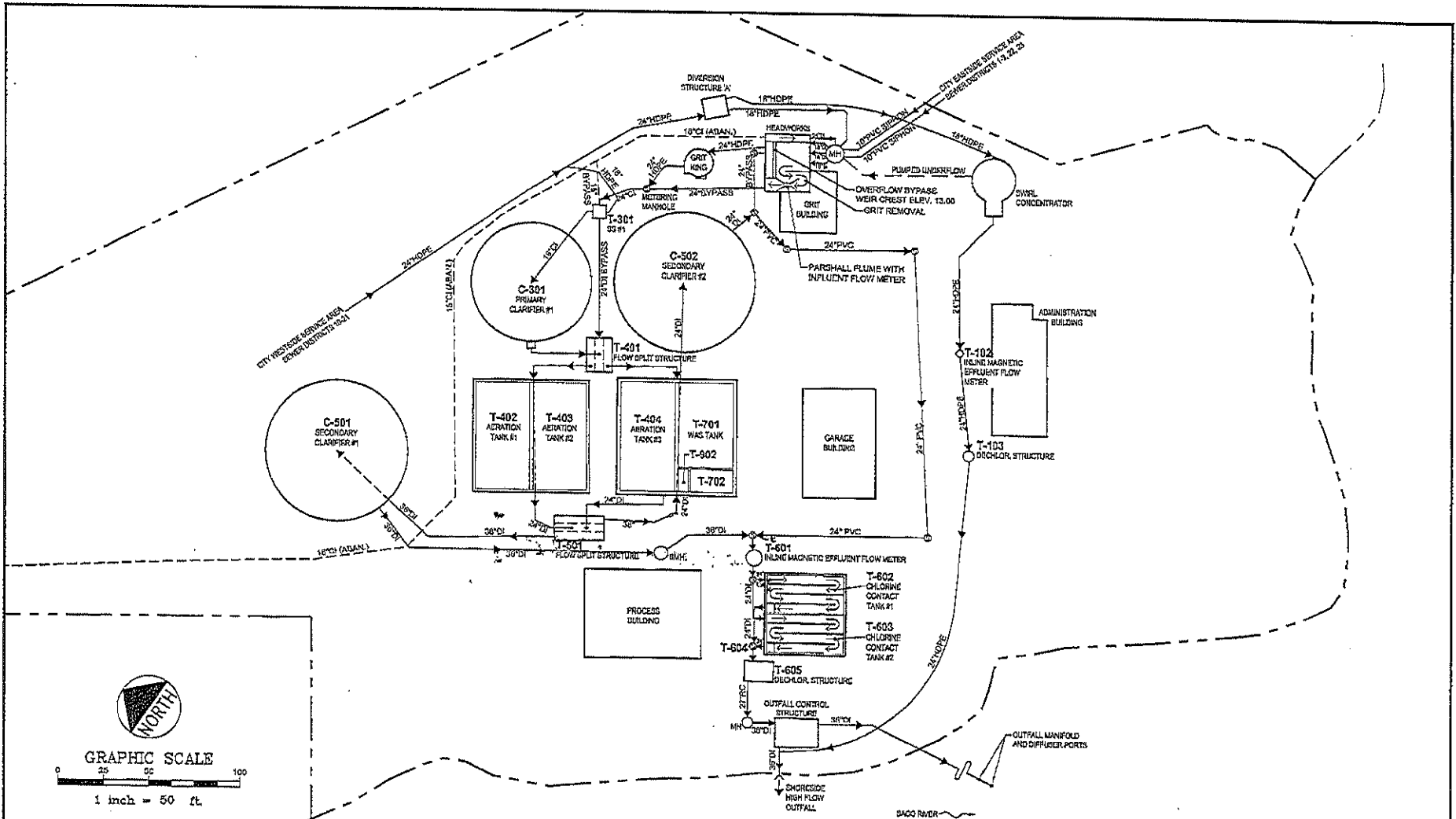
Gulf of Maine
ATLANTIC
OCT

Buxton
Babb Corner
South Gorham
Scarborough
Pleasant Hill
Black Point
Saco
Sandy Brook
Dunstan Corner
Milliken
Pine Point
Surfside
Old Orchard Beach
Palace Playland
Downeaster
Ocean Park
Kinney Shores
Bay View
Ferry Beach
State Park
Ferry Beach
Camp Ellis
Hills Beach
Hills Beach
East Point
Sanctuary
Biddeford Pool
Fortunes Rocks
Fortunes Rocks
Beacon Corner
Adams Corner
Clock Farm
Goose Rocks
Goose Rocks
East Goose Rocks
West Goose Rocks
Hoyt Neck
Cape I
Green I
Folly I
Blowing
Cave
Blowing
Cave
Cozy Corners
Parsons
Beach
Lords
Point
Kennebunk
Beach
Laughlin
Beach
Drakes Island
Yebhan
River Marsh
Drakes Island
Beach

Biddeford
Map 71

Louis

ATTACHMENT B



DeLuca-Hoffman Associates, Inc.
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, ME 04106
207.775.1121
WWW.DELUCAHOFFMAN.COM

DRAWN:	CDD	DATE:	FEB. 2011
DESIGNED:	JAL	SCALE:	1" = 50'
CHECKED:	JAL	JOB NO.:	1599.10
FILE NAME:	CONSTR SETY199.10-UPDATED SCHEMATIC		

CITY OF SACO
WASTEWATER TREATMENT PLANT

SCHEMATIC DIAGRAM

FIGURE
1

ATTACHMENT C

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?	<input type="checkbox"/>	<input type="checkbox"/>
2	Changes in the condition or operations of the facility that may increase the toxicity of the discharge?	<input type="checkbox"/>	<input type="checkbox"/>
3	Changes in storm water collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge?	<input type="checkbox"/>	<input type="checkbox"/>
4	Increases in the type or volume of hauled wastes accepted by the facility?	<input type="checkbox"/>	<input type="checkbox"/>

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	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
WET Testing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Priority Pollutant Testing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analytical Chemistry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other toxic parameters ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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.

ATTACHMENT D



PAUL R. LEPAGE
GOVERNOR

STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES
21 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0021

PATRICK C. KELIHER
COMMISSIONER

Shellfish Harvesting Area Classification-Notification of Changes

March 10, 2016

Ladies and Gentlemen:

Under the authority of Maine statute 12 M.R.S.A., Chapter 607, Section 6172; the Commissioner has made the following classification change to Area No. 10, Saco River and Saco Bay (Biddeford, Saco, Old Orchard Beach): This notice combines Prohibited areas within Saco Bay (A.1. and A.2.) and reclassifies Biddeford Pool from Approved and Restricted to Conditionally Approved and Conditionally Restricted based on performance of the Biddeford Pool Wastewater Treatment Plant. This notice also reclassifies Hills Beach (Biddeford) from Restricted to Prohibited due to point source pollution from Wastewater Treatment Plant outfalls in the Saco River. All existing pollution and red tide/psp closures remain in effect.

The boundary descriptions of the area are as follows (struck text is being removed and underlined text is being added):

- A. Effective immediately, because of pollution, it shall be unlawful to dig, take or possess any clams, quahogs, oysters or mussels taken from the shores, flats and waters west of a line beginning at the end of Parcher Avenue at East Grand Avenue (Old Orchard Beach); then running southeast to the southwest tip of Stratton Island (Saco); then running southeast to buoy RW "W1"; then running southwest to the east tip of Wood Island (Biddeford); then running southwest to the east tip of East Point, Fletcher Neck (Biddeford), and continuing southwest to the south tip of South Point, Fletcher Neck (Biddeford); AND east of a line across the mouth of Biddeford Pool to the west end of Orcutt Blvd.
- B. Effective immediately, because of proximity to the Biddeford Pool WWTP outfall, it shall be unlawful to dig, take or possess any clams, quahogs, oysters or mussels taken from the shores, flats and waters west of a line beginning at the tip of a point of land approximately 550 yards east of the end of Days Landing running southwest to a red painted post on a point of land approximately 150 yards east from the end of Winter Harbor Lane is classified Conditionally Restricted and will CLOSE during any malfunction of the Biddeford Pool WWTP. This area requires a special MEDMR permit. **Please refer to the Statewide Conditional Area Closure Notice on the DMR website:**
http://www.maine.gov/dmr/rm/public_health/closures/closedarea.htm for open/closed status.

~~A. Effective immediately, because of pollution, it shall be unlawful to dig, take or possess any clams, quahogs, oysters or mussels taken from the shores, flats and waters of the following areas:~~

- ~~1. Saco Bay: west of a line beginning at the end of Parcher Avenue at East Grand Avenue (Old Orchard Beach); then running southeast to the southwest tip of Stratton Island (Saco); then running southeast to buoy RW "WI"; then running southwest to the east tip of Wood Island (Biddeford); then running northwest to the north tip of Ram Island (Saco); then running northwest to Fairhaven Avenue (Saco).~~
- ~~2. The Saco River, Saco Bay, and The Pool (Biddeford Pool): south and west of a line beginning at Fairhaven Avenue (Saco); then running east to the north tip of Ram Island (Saco); then running southeast to the east tip of Wood Island (Biddeford); then running southwest to the east tip of East Point, Fletcher Neck (Biddeford), and continuing southwest to the south tip of South Point, Fletcher Neck (Biddeford); AND north a line beginning at the southeast corner of the mouth of the Saco River; then running southeast to the south tip of Basket Island; then continuing southeast to Fort Hill and across the mouth of Biddeford Pool to the west end of the Lester B. Orcutt Blvd.~~

~~B. Effective immediately, because of pollution, it shall be unlawful to dig, take or possess any clams, quahogs, oysters or mussels taken from the shores, flats and waters of the following areas. These areas are classified as Restricted and harvesting requires a special MEDMR permit.~~

- ~~1. Hills Beach (Biddeford), South of a line beginning at the southeast corner of the mouth of the Saco River; then running southeast to the south tip of Basket Island; then continuing southeast to Fort Hill and across the mouth of Biddeford Pool to the west end of the Lester B. Orcutt Blvd.~~
- ~~2. Biddeford Pool (Biddeford), west of a line beginning at the tip of a point of land approximately 550 yards east of the end of Days Landing running south to a red painted post on a point of land approximately 150 yards east from the end of Winter Harbor Lane.~~

If you have questions, please contact Angel Ripley or Kohl Kanwit, Department of Marine Resources, 194 McKown Point Road, West Boothbay Harbor, Maine 04575-0008, Tel: (207) 633-9515 or (207) 633-9535, Email: angel.ripley@maine.gov or Kohl.Kanwit@maine.gov. During **weekends/holidays**, contact the appropriate State Police barracks: from New Hampshire border to Brunswick, barracks 1-800-228-0857; from Cushing/Boothbay to Lincolnville/Belfast area, barracks 1-800-452-4664; from Belfast to Canadian border, barracks 1-800-432-7381. This notice can be viewed on the Department's website at: http://www.maine.gov/dmr/rm/public_health/closures/closedarea.htm. This information is also recorded on our HOTLINE (207-624-7727 OR 1-800-232-4733).

Sincerely,



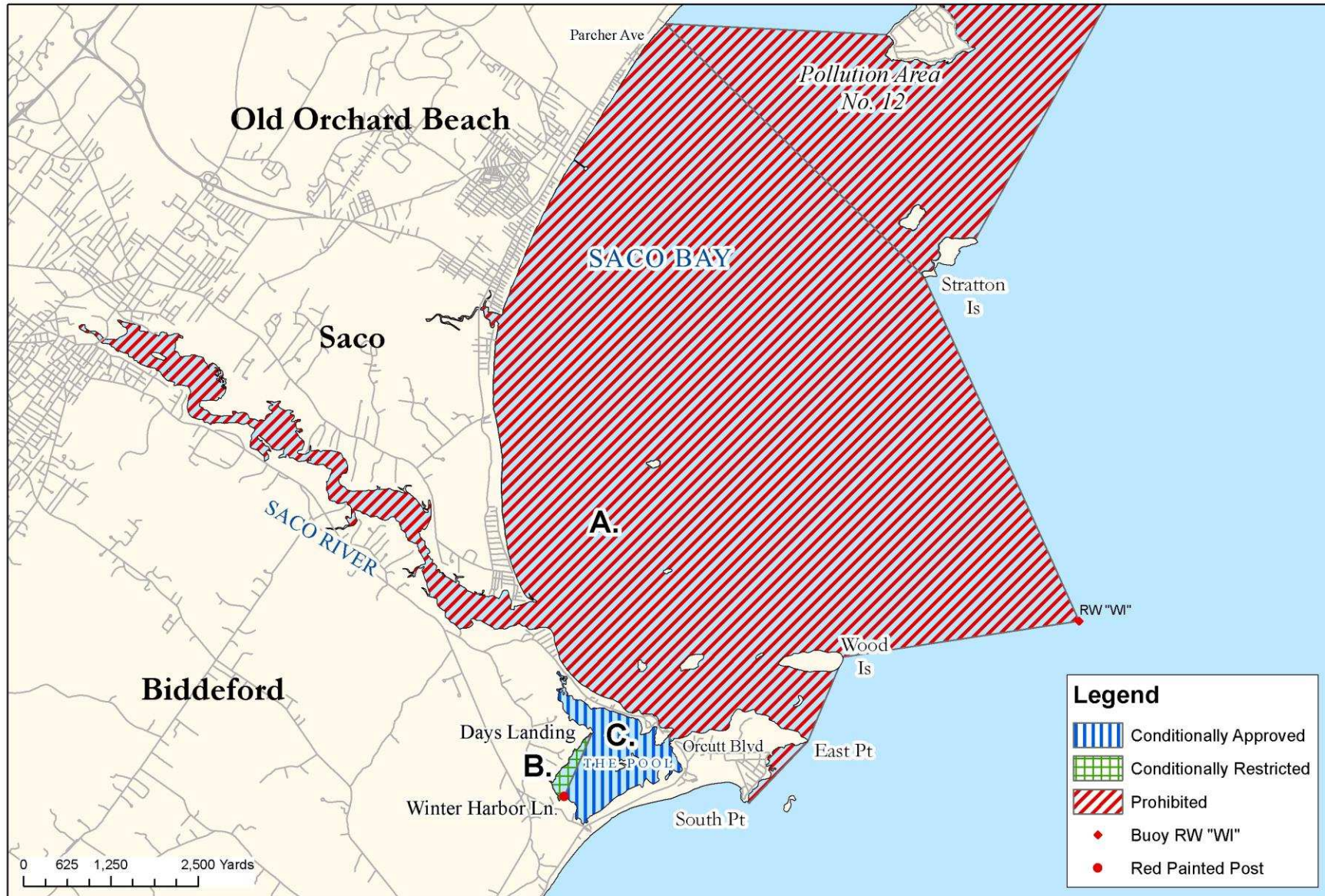


Maine Department of Marine Resources

Pollution Area No. 10

Saco River and Saco Bay (Biddeford, Saco, Old Orchard Beach)

4/27/16



ATTACHMENT E

3/1/2016

WET TEST REPORT

Data for tests conducted for the period

01/Mar/2011 - 01/Mar/2016



SACO NPDES= ME0101117 Effluent Limit: Acute (%) = 14.286 Chronic (%) = 5.714

Species	Test	Percent	Sample date	Critical %	Exception	RP
MYSID SHRIMP	A_NOEL	54.40	03/08/2011	14.286		
MYSID SHRIMP	A_NOEL	75	05/16/2011	14.286		
MYSID SHRIMP	A_NOEL	83.30	09/07/2011	14.286		
MYSID SHRIMP	A_NOEL	100	11/12/2012	14.286		
MYSID SHRIMP	A_NOEL	100	04/22/2013	14.286		
MYSID SHRIMP	A_NOEL	100	03/26/2014	14.286		
MYSID SHRIMP	A_NOEL	100	08/26/2015	14.286		
MYSID SHRIMP	A_NOEL	100	10/27/2015	14.286		
SEA URCHIN	C_NOEL	100	03/08/2011	5.714		
SEA URCHIN	C_NOEL	100	05/16/2011	5.714		
SEA URCHIN	C_NOEL	100	09/07/2011	5.714		
SEA URCHIN	C_NOEL	100	11/12/2012	5.714		
SEA URCHIN	C_NOEL	14.30	04/22/2013	5.714		
SEA URCHIN	C_NOEL	100	03/26/2014	5.714		
SEA URCHIN	C_NOEL	100	08/26/2015	5.714		
SEA URCHIN	C_NOEL	100	10/27/2015	5.714		

ATTACHMENT F

Data Date Range: 01/Mar/2011 - 01/Mar/2016

Showing only those values not reported as a less than result

Facility name: **SACO**Permit Number: **ME0101117****Parameter:** AMMONIA**Test date** **Result (ug/l)** **Lsthan**

03/08/2011	3400.000	N
05/16/2011	6900.000	N
09/07/2011	1400.000	N
11/12/2012	840.000	N
04/22/2013	13000.000	N
03/26/2014	5700.000	N
10/27/2015	2300.000	N

Parameter: ARSENIC**Test date** **Result (ug/l)** **Lsthan**

02/15/2012	1.000	N
06/14/2012	1.400	N
08/14/2012	1.400	N
11/12/2012	1.200	N
01/08/2013	1.000	N
04/22/2013	1.200	N
08/13/2013	1.700	N
03/26/2014	1.000	N

Parameter: CHLORINE**Test date** **Result (ug/l)** **Lsthan**

05/16/2011	10.000	N
09/07/2011	10.000	N
11/12/2012	10.000	N
04/22/2013	20.000	N
03/26/2014	30.000	N
10/27/2015	0.030	N

Parameter: COPPER**Test date** **Result (ug/l)** **Lsthan**

03/08/2011	4.800	N
05/16/2011	6.900	N
09/07/2011	5.700	N
11/12/2012	7.270	N
04/22/2013	8.390	N
03/26/2014	3.560	N
10/27/2015	15.300	N

Parameter: LEAD**Test date** **Result (ug/l)** **Lsthan**

05/16/2011	0.500	N
11/12/2012	0.270	N
04/22/2013	0.240	N
03/26/2014	0.284	N
10/27/2015	0.586	N

Parameter: MERCURY**Test date** **Result (ug/l)** **Lsthan**

03/21/2011	0.001	N
06/14/2011	0.002	N
09/21/2011	0.001	N
12/26/2012	0.002	N
04/22/2013	0.001	N
03/27/2014	0.002	N

Data Date Range: 01/Mar/2011 - 01/Mar/2016

Showing only those values not reported as a less than result

Facility name: **SACO**Permit Number: **ME0101117**

Parameter:	Test date	Result (ug/l)	Lsthan
NICKEL	04/24/2015	0.001	N
	03/08/2011	2.900	N
	05/16/2011	2.480	N
	11/12/2012	8.340	N
	04/22/2013	2.420	N
	03/26/2014	2.880	N
	10/27/2015	3.070	N
SALINITY	03/08/2011	0.220	N
	05/16/2011	0.200	N
	12/28/2011	0.110	N
	11/12/2012	0.130	N
	04/22/2013	0.180	N
	03/26/2014	0.240	N
	10/27/2015	220.000	N
TOC	05/16/2011	9000.000	N
	09/07/2011	9900.000	N
	11/12/2012	8400.000	N
	04/22/2013	9600.000	N
	03/26/2014	6300.000	N
	10/27/2015	9300.000	N
TSS	05/16/2011	7600.000	N
	09/07/2011	4800.000	N
ZINC	03/08/2011	37.600	N
	05/16/2011	27.500	N
	09/07/2011	37.100	N
	11/12/2012	36.600	N
	04/22/2013	35.600	N
	03/26/2014	33.200	N
	10/27/2015	56.300	N