STATE OF MAINE
DEPARTMENT OF -
ENVIRONMENTAL PROTECTION -

PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

October 13, 2016

Mr. James Porter
City of Calais
Calais City Building, P.O. Box 413
Calais, ME. 04619
manager@calaismaine.org

Sent via electronic mail
Delivery confirmation requested

RE: *Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0100129*
Maine Waste Discharge License (WDL) Application #W002751-6D-M-R
Proposed Draft MEPDES Permit - Renewal

Dear Mr. Porter:

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 October 13, 2016 and ends on November 14, 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 Monday, November 14, 2016. Failure to submit comments in a timely fashion will result in the proposed draft/license permit document being issued as drafted.

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

Maine Department of Environmental Protection
Bureau of Water Quality
Division of Water Quality Management
17 State House Station
Augusta, ME 04333-0017
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.

ec: Annaleis Hafford, Olver Associates, Inc.
Barry Mower, DEP
Pamela Parker, DEP
Gary Brooks, DEP
Lori Mitchell, DEP
Mike Riley, DEP
Sean Mahoney, CLF
Environmental Review, DMR
David Webster, USEPA
David Pincumbe, USEPA
Alex Rosenberg, USEPA
Olga Vergara, USEPA
Marelyn Vega, USEPA
Richard Carvalho, USEPA
Environmental Review, IFW
Trevor White, Passamaquoddy Tribe-Indian Township
Dale Mitchell, Passamaquoddy Tribe-Pleasant Point

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

DEPARTMENT ORDER

IN THE MATTER OF

CITY OF CALAIS	)	MAINE POLLUTANT DISCHARGE
PUBLICLY OWNED TREATMENT WORKS	)	ELIMINATION SYSTEM PERMIT
CALAIS, WASHINGTON COUNTY, MAINE	)	AND
ME0100129	)	WASTE DISCHARGE LICENSE
W002751-6D-M-R **APPROVAL**	)	**RENEWAL**

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

APPLICATION SUMMARY

On September 26, 2016, the Department accepted as complete for processing an application from Calais for renewal of combination Waste Discharge License (WDL) # W002751-6D-I-R / Maine Pollutant Discharge Elimination System (MEPDES) permit # ME0100129, which was issued by the Department on October 4, 2011 for a five-year term. The October 4, 2011 permit authorized the monthly average discharge of up to 1.5 million gallons per day (MGD) of secondary treated sanitary wastewater and an unspecified quantity of excess combined sanitary and storm water receiving primary treatment only (and seasonal disinfection) from a municipal wastewater treatment facility and an unspecified quantity of untreated combined sanitary and storm water from five (5) combined sewer overflow (CSO) outfalls to the St. Croix River, Class C (CSO Outfall #006) and Class SC (all other outfalls), in Calais, Maine.

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PERMIT SUMMARY

a. Terms and conditions

This permitting action is different from the October 4, 2011 permit in that it:

1. Eliminates Special Condition *P. Wastewater Facility Energy Audit* of the 2011 minor revision permit as the terms of the condition have been fulfilled;

For Secondary Treated Wastewater (Outfall #001A)

2. 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);

3. Reduces the monitoring and reporting requirement for biochemical oxygen demand (BOD_5) and total suspended solids (TSS) from 2/Week to 1/Week, and pH from 1/Day to 2/Week;

4. Amends the whole effluent toxicity (WET) screening monitoring period from 12 months prior to permit expiration to 24 months prior to permit expiration;

5. Incorporates an Industrial Waste Survey (IWS) into Special Condition D. *Limitations for Industrial Users*;

6. Establishes a BOD_5 and TSS maximum daily concentration reporting condition when a bypass of secondary treatment is active;

7. Establishes a daily maximum flow monitoring and reporting condition;

For Primary Treated Wastewater (Outfall #002A)

8. Eliminates Surface Loading Rate, BOD_5 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 BOD_5 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 October 13, 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 five 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 CALAIS to discharge a monthly average flow of 1.5 MGD of secondary treated sanitary wastewater and allow 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 5 CSO outfalls (four to the St. Croix River, Class SC; one to the St. Croix River, Class C) in Calais, 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 Matter*s, 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 September 26, 2016
Date of application acceptance September 26, 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 St. Croix River in Calais. 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	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow *[50050]*	1.5 MGD *[03]*	---	Report MGD *[03]*	---	---	---	Continuous *[99/99]*	Recorder *[RC]*
BOD_5 *[00310]*	375 lbs./day *[26]*	563 lbs./day *[26]*	Report lbs./day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L[(2)] *[19]*	1/Week *[01/07]*	Composite *[24]*
BOD_5 Percent Removal [(3)] *[81010]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
BOD_5 *[00310]* ***(When Bypass is active)***	375 lbs./day *[26]*	563 lbs./day *[26]*	Report lbs./day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	Report mg/L[(2)] *[19]*	1/Week *[01/07]*	Composite *[24]*
TSS *[00530]*	375 lbs./day *[26]*	563 lbs./day *[26]*	Report lbs./day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L[(2)] *[19]*	1/Week *[01/07]*	Composite *[24]*
TSS Percent Removal [(3)] *[81011]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
TSS *[00530]* ***(When Bypass is active)***	375 lbs./day *[26]*	563 lbs./day *[26]*	Report lbs./day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	Report mg/L[(2)] *[19]*	1/Week *[01/07]*	Composite *[24]*
Settleable Solids *[00545]*	---	---	---	---	---	0.3 ml/L *[25]*	5/Week *[05/07]*	Grab *[GR]*
Fecal Coliform Bacteria [(4)] *[31616] (May 15-Sept. 30)*	---	---	---	15/100 ml[(5)] *[13]*	---	50/100 ml *[13]*	2/Week *[02/07]*	Grab *[GR]*
Total Residual Chlorine (TRC) [(6)] *[50060]*	---	---	---	---	---	1.0 mg/L *[19]*	1/Day *[01/01]*	Grab *[GR]*
pH *[00400]*	---	---	---	---	---	6.0 – 9.0 SU *[12]*	2/Week *[02/07]*	Grab *[GR]*
Mercury (Total) [(7)] *[71900]*	---	---	---	16.7 ng/L *[3M]*	---	25.1 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 St. Croix River in Calais. Such discharges must be limited and monitored by the permittee as specified below [(1)]:

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)] Acute – NOEL *Americamysis bahia* (Mysid Shrimp) *[TDM3E]*	---	---	---	Report % *[23]*	1/Year *[01/YR]*	Composite *[24]*
Chronic – NOEL *Arbacia punctulata* (Sea urchin) *[TBH3A]*	---	---	---	Report % *[23]*	1/Year *[01/YR]*	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 #002A – Primary Treatment Only)**
The permittee is authorized to discharge **primary treated and disinfected wastewaters via Outfall #002A** when the influent to the wastewater treatment facility exceeds a flow rate of **1,250 gallons per minute (1.8 MGD)** for 60 minutes (peak hourly flow). Allowance to bypass secondary treatment will be reviewed and may be modified or terminated pursuant to Special Condition O, *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 #002A 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]*	---	1,752 lbs./day *[26]*	---	Report mg/L *[19]*	1/Discharge Day **(12,13)** *[01/DD]*	Composite *[CP]*
TSS *[00530]*	---	1,602 lbs./day *[26]*	---	Report mg/L *[19]*	1/Discharge Day **(12,13)** *[01/DD]*	Composite *[CP]*
Fecal Coliform bacteria *[31633]*	---	---	---	200/100 ml *[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]*

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 BOD_5 and TSS must be conducted after the influent Parshall flume but before grit removal.

2. **Daily Maximum Concentration limit** – When the bypass of secondary treatment is active, the daily maximum concentration limit of 50 mg/L for BOD_5 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 BOD_5 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.

4. **Fecal coliform bacteria** - Limits and monitoring requirements are in effect on a seasonal basis (May 15 through September 30).

5. **Fecal coliform bacteria** – The monthly average limitation is a geometric mean limitation and values must be calculated and reported as such.

SPECIAL CONDITIONS

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

Footnotes

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 Methods 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 1.2% and 0.3%, 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 95.0:1 and 378:1, 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 1.1% and 0.3%, respectively.

   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.

SPECIAL CONDITIONS

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

Footnotes

a. U.S. Environmental Protection Agency. 2002. *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organism*s, 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 Organism*s, 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.

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.

SPECIAL CONDITIONS

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

Footnotes

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. Samples must be flow-proportioned.

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. **BOD_5, TSS, TRC, and Fecal Coliform bacteria** – When the bypass is active, sampling to comply with the 1/Discharge Day monitoring requirement for these parameters is only required if:
    (1) It coincides with the scheduled monitoring event for the secondary treated effluent waste stream; and
    (2) The bypass has been active for more than 60 minutes, or during intermittent discharge events over the course of a 24-hour period that last more than 120 minutes; and
    (3) If the bypass event(s) occur between the hours of 7:00 AM – 4:00 PM during the normal work week (Monday through Friday, excluding holidays).

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 III**, 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. 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 publicly owned treatment works (POTW) subject to Pretreatment Standards under section 307(b) of the federal Clean Water Act, 40 CFR Part 403 (general pretreatment regulations) or *Pretreatment Program*, 06-096 CMR 528 (last amended March 17, 2008).

E. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing on September 26, 2016; 2) the terms and conditions of this permit; and 3) only from Outfall #001A, #002A, and five (5) combined sewer overflow outfalls listed in Special Condition J, *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.

F. NOTIFICATION REQUIREMENT

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

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

2. Any substantial change (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.

SPECIAL CONDITIONS

F. NOTIFICATION REQUIREMENT (cont'd)

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.

G. 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.

H. 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

I. 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 4,000 gallons per day up to a monthly total of 80,000 gallons** 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

I. 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

J. COMBINED SEWER OVERFLOWS (CSO's)

Pursuant to *Combined Sewer Overflow Abatement*, 06-096 CMR 570 (last amended February 5, 2000), 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

Outfall No./Name	Outfall Location	Receiving Water and Class
003 Headworks	Treatment Plant	St. Croix River, Class SC
004 Steamboat Street PS	Steamboat Street	St. Croix River, Class SC
005 Union Street PS	Union Street	St. Croix River, Class SC
006 King Street PS	King Street	St. Croix River, Class C
007 South Street PS	South Street	St. Croix River, Class SC

2. Prohibited Discharges

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

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

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

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 uses 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.

   d) The effluent by itself or in combination with other discharges must 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.

SPECIAL CONDITIONS

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

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

   The permittee must implement CSO control projects in accordance with an approved CSO Master Plan and abatement schedule. The previous CSO Master Plan entitled "*Sewer System Master Plan for CSO Abatement City of Calais*" dated August 2006 and revised April 2007 was approved by the Department on June 18, 2007. An "*Updated Sewer System Master Plan for CSO Abatement, City of Calais*" was submitted by Olver Associates on behalf of the city in December 2014, and revised December 2015 based on comments by the Department dated July 30, 2015 and subsequently approved on January 7, 2016. The permittee is now required to comply with the following milestones:

   By December 31, 2017, *(ICIS Code CS016)*, the Permittee must complete construction of the work identified as the South Street and Harrison Street sewer remediation project.

   By December 31, 2019, *(ICIS Code 81699)*, the Permittee must submit for review and approval an updated CSO Master Plan with abatement schedule.

   To modify the dates and or projects specified in this permit (but not dates in the Master Plan), the permittee must file an application with the Department to formally modify this permit. The work items identified in the abatement schedule may be amended from time to time based upon approval by 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 06-096 CMR 570(5)]

   The permittee must implement and follow the Nine Minimum Controls 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).

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

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

SPECIAL CONDITIONS

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

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 06-096 CMR 570(8)]

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.

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

By March 1 ***(ICIS Code CS010)***, of each year the permittee must submit *CSO Progress Reports* covering the previous calendar year (January 1 to December 31). The CSO Progress Report must include, but is not necessarily limited to, the following topics as further described in 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 following address:

CSO Coordinator
Department of Environmental Protection
Bureau of Water Quality
Division of Water Quality Management
17 State House Station
Augusta, Maine 04333-0017
e-mail: CSOCoordinator@maine.gov

SPECIAL CONDITIONS

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

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 CALAIS
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 wastewater 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.

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

By December 31 of each calendar year, the permittee must provide the Department with a certification describing any of the following that have occurred since the effective date of this permit ***[ICIS Code 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;

SPECIAL CONDITIONS

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

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

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

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

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

L. 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
Eastern Maine Regional Office
Bureau of Water Quality
Division of Water Quality Management
106 Hogan Road
Bangor, Maine 04401

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.

SPECIAL CONDITIONS

M. ASSET MANAGEMENT PROGRAM (AMP)

The permittee must prepare an AMP in accordance with Department guidance entitled, *Maine Department of Environmental Protection, Clean Water State Revolving Fund (CWSRF) Guidance for Minimum Requirements for an Asset Management Program and Reserve Account In Order to Qualify for CWSRF Principal Forgiveness*, DEPLW1190C-2014. The AMP must be reviewed and updated as necessary at least annually. The AMP shall be kept on-site at the permittee's office and made available to Department staff for review during normal business hours. This requirement to maintain a current written AMP will sunset upon receipt of the final Repair and Replacement Reserve Account certification by the Department (On or before October 1, 2020).

N. REPAIR AND REPLACEMENT RESERVE ACCOUNT

Beginning October 1, 2016, and every year thereafter totaling four consecutive years, the permittee must fund a Repair and Replacement Reserve Account in accordance with Department guidance DEPLW1190C-2014, referenced above in the amount recommended in the permittee's Asset Management Plan or at a minimum of 2% of the permittee's total yearly waste water operation and maintenance budget each year.

On or before October 1, 2016, and every year thereafter for four years ***(ICIS Code 59499)*** the permittee must submit a certification to the Department indicating a Repair and Replacement Reserve Account has been fully funded as required above. See **Attachment F** of this permit for a copy of the certification form. The permittee must attach copies of yearly budget reports to the annual certification forms showing funds deposited in the reserve account for each year for the five years, the end of year account balance and, if funds were expended, what the funds were used for.

O. 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.

P. 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.

CONTENTS

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).

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 if 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 MAINTENACE 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

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.

(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.

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.

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

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).

(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.

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 contaminates 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.

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.

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

Doc Num: DEPLW0463

DEP-49-CSO-Dedicated.xls (rev. 12/12/01)

WET WEATHER BYPASS OPERATIONS REPORT FOR _____ State License No. _____ MEPDES/NPDES Permit No. _____ SIGNED BY:_____ DATE:_____

DATE	SECONDARY BYPASS FLOW DATA						Cl RESIDUALS				BACTERIA								BOD5					TSS					WEATHER				
MONTH_____ YEAR_____	TREATED PRIMARY FLOW BYPASSING SECONDARY	SECONDARY BYPASS CLARIFIER SURFACE AREA	BYPASS DURATION	BYPASS CLARIFIER SURFACE LOADING RATE	SECONDARY FLOW TREATED	TRUE CSO BYPASS AROUND PRIMARY	MAX CHLORINE DOSE	CHLORINE RESIDUAL IN PRIMARY EFFLUENT	CHLORINE RESIDUAL IN SECONDARY EFFLUENT	CALCULATED BLENDED 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 BLENDED EFFLUENT	pH	SETTLEABLE SOLIDS IN PRIMARY EFFLUENT	PRIMARY INFLUENT	PRIMARY EFFLUENT	PERCENT REMOVAL	SECONDARY EFFLUENT	CALCULATED BLENDED EFFLUENT	PRIMARY INFLUENT	PRIMARY EFFLUENT	PERCENT REMOVAL	SECONDARY EFFLUENT	CALCULATED BLENDED EFFLUENT	CONDITIONS	TEMPERATURE	PRECIPITATION	STORM DURATION	COMMENTS
	MG	Sf	hrs	Gpd/Sf	MG	MG	mg/L	mg/L	mg/L	mg/L	#/100	#/100	#/100	#/100	#/100			ml/L	mg/L	mg/L	%	mg/L	mg/L	mg/L	mg/L	%	mg/L	mg/L		F	In	Hrs	
1																																
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29																																
30																																
31																																
Total																																
Avr																																
Max																																

Number of discharge days _____

ATTACHMENT B

MERCURY REPORT - Clean Test Only

Data Date Range: 27/Apr/2001 - 27/Apr/2016

Facility: **CALAIS** **Permit Number:** ME0100129

Max (ug/l): 0.0220 **Average (ug/l):** 0.0081

Sample Date	Result (ng/l)	Lsthan	Clean
03/31/2009	4.90	N	T
07/31/2009	5.40	N	T
09/28/2009	3.80	N	T
12/29/2009	4.00	N	T
03/29/2010	2.10	N	T
06/30/2010	1.50	N	T
08/30/2010	20.00	N	T
10/29/2010	6.80	N	T
03/07/2011	15.00	N	T
06/30/2011	9.00	N	T
09/30/2011	8.80	N	T
12/19/2011	8.40	N	T
03/30/2012	22.00	N	T
06/28/2012	10.00	N	T
11/06/2013	2.70	N	T
05/14/2014	9.50	N	T
09/25/2015	3.94	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**	
	mysid shrimp	**sea urchin**
A-NOEL		
C-NOEL		

Effluent Limitations	
A-NOEL	
C-NOEL	

Data summary	**mysid shrimp**	**sea urchin**
	% survival	**% fertilized**
QC standard	**>90**	**>70**
lab control		
receiving water control		
conc. 1 (%)		
conc. 2 (%)		
conc. 3 (%)		
conc. 4 (%)		
conc. 5 (%)		
conc. 6 (%)		
stat test used		

Salinity Adjustment	
brine	
sea salt	
other	

place * next to values statistically different from controls

Reference toxicant	mysid 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 #** _____ **Pipe #** _____ Facility Representative Signature _____
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)	m

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

			Effluent Limits, %			Receiving Water or Ambient	**Effluent Concentration (ug/L or as noted)** WET Result, % Do not enter % sign	Reporting Limit Check	**Possible Exceedence** [7]		
			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]

	Also do these tests on the effluent with WET. Testing on the receiving water is optional	Reporting Limit	Effluent Limits, ug/L Acute[6]	Chronic[6]	Health[6]			Reporting Limit Check	**Possible Exceedence** [7] Acute	Chronic	Health
	TOTAL RESIDUAL CHLORINE (mg/L) (9)	0.05				NA					
	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						Possible Exceedence [7]		
		Reporting Limit	Acute[6]	Chronic[6]	Health[6]			Reporting Limit Check	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	1,1,2,2-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-CHLOROETHYLVINYL 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")							
		TOTAL INCHES	MAX. HR. INCHES	LOCATION: NUMBER:	LOCATION: NUMBER:	LOCATION: NUMBER:	LOCATION: NUMBER:	LOCATION: NUMBER:	LOCATION: NUMBER:	EVENT OVERFLOW GALLONS	EVENT DURATION HRS
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
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19											
20											
21											
22											
23											
24											
25											
	TOTALS										

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

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

ATTACHMENT F

CLEAN WATER STATE REVOLVING FUND

REPAIR AND REPLACEMENT RESERVE ACCOUNT CERTIFICATION

I _____ representing the _____
(print name of cognizant official) *(print name of permittee)*

hereby certify to the Maine Department of Environmental Protection that as of _____
(date)

a *Clean Water State Revolving Fund (CWSRF) Repair and Replacement Reserve Account* has been established and is fully funded in accordance with Department Guidance entitled, *Maine Department of Environmental Protection, Clean Water State Revolving Fund (CWSRF) Guidance for Minimum Requirements for an Asset Management Program and Reserve Account In Order to Qualify for CWSRF Principal Forgiveness*, DEPLW1190-2010; and

That our total yearly wastewater operation and maintenance budget for the previous year was $_____; and

That the amount recommended in our asset management plan, or as a minimum, 2% of our total yearly wastewater operation and maintenance budget was $_____; and

That $_____ was deposited to the Repair and Replacement Reserve Account last year; and

That $_____ was expended from this account last year in accordance with the Department Guidance; and

That the current balance of the Repair and Replacement Reserve Account is $_____.

Signature _____ Date _____

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
WASTE DISCHARGE LICENSE

PROPOSED DRAFT FACT SHEET

Date: **October 13, 2016**

MEPDES PERMIT: **ME0100129**
WASTE DISCHARGE LICENSE: **W002751-6D-M-R**

NAME AND ADDRESS OF APPLICANT:

CITY OF CALAIS
CITY BUILDING, P.O. BOX 413
CALAIS, ME 04619

COUNTY: **WASHINGTON**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

CITY OF CALAIS WASTEWATER TREATMENT FACILITY
ELM STREET
CALAIS, MAINE 04619

RECEIVING WATER / CLASSIFICATION: **ST. CROIX RIVER/CLASS SC & C**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER:

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1. APPLICATION SUMMARY

a. On September 26, 2016, the Department of Environmental Protection (Department) accepted as complete for processing an application from the City of Calais (Calais) for renewal of combination Waste Discharge License (WDL) # W002751-6D-I-R / Maine Pollutant Discharge Elimination System (MEPDES) permit # ME0100129, which was issued by the Department on October 4, 2011 for a five-year term. The October 4, 2011 permit authorized the monthly average discharge of 1.5 million gallons per day (MGD) of secondary treated sanitary wastewater and an unspecified quantity of excess combined sanitary and storm water receiving primary treatment only (and seasonal disinfection) from a municipal wastewater treatment facility and an unspecified quantity of untreated combined sanitary and storm water from five (5) combined sewer overflow (CSO) outfalls to the St. Croix River, Class C (CSO Outfall #006) and Class SC (all other outfalls), in Calais, Maine.

2. PERMIT SUMMARY

a. Terms and conditions

This permitting action is different from the October 4, 2011 permit in that it:

1. Eliminates Special Condition *P. Wastewater Facility Energy Audit* of the 2011 minor revision permit as the terms of the condition have been fulfilled;

For Secondary Treated Wastewater (Outfall #001A)

2. 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);

3. Reduces the monitoring and reporting requirement for biochemical oxygen demand (BOD_5) and total suspended solids (TSS) from 2/Week to 1/Week, and pH from 1/Day to 2/Week;

4. Amends the whole effluent toxicity (WET) screening monitoring period from 12 months prior to permit expiration to 24 months prior to permit expiration;

5. Incorporates an Industrial Waste Survey (IWS) into Special Condition D. *Limitations for Industrial Users*;

6. Establishes a BOD_5 and TSS maximum daily concentration reporting condition when a bypass of secondary treatment is active;

2. PERMIT SUMMARY (cont'd)

7. Establishes a daily maximum flow monitoring and reporting condition;

For Primary Treated Wastewater (Outfall #002A)

8. Eliminates Surface Loading Rate, BOD_5 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 BOD_5 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:

September 30, 1997 – The U.S. Environmental Protection Agency (USEPA) issued National Pollutant Discharge Elimination System (NPDES) permit renewal #ME0100129 for a five-year term.

May 23, 2000 – The Department administratively modified the City's July 13, 1999 WDL by establishing interim monthly average and daily maximum technology-based concentration limitations of 16.7 ng/L and 25.1 ng/L, respectively, 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 #ME0100129 (same as the NPDES permit number) has been used as the primary reference number for the Calais facility.

June 20, 2004 – The City of Calais' consulting engineer submitted a final document entitled, *Waste Water Infrastructure Facilities Evaluation*, to the Department. The report recommends significant structural and operational improvements for the treatment plant and collection system.

April 10, 2006 – The Department issued a modification to the July 13, 1999 WDL by incorporating the WET and chemical specific testing requirements of a new Department rule, Chapter 530, *Surface Water Toxics Control Program.*

August 31, 2006 – The City of Calais submitted a document entitled, Sewer System Master Plan For CSO Abatement, City of Calais, August 2006 to the Department for review and approval.

2. PERMIT SUMMARY (cont'd)

September 11, 2006 – The Board of Environmental Protection approved a Consent Agreement between the State of Maine and the City of Calais for violations of its waste discharge license.

September 29, 2006 – The Department issued combination WDL/MEPDES permit #W002751-5L-G-R/#ME0100129 to City for a five-year term. The September 29, 2006 permit superseded WDL #W002751-5L-E-R issued on July 13, 1999 and all previous WDLs back to the earliest order on file, dated November 20, 1984.

January 8, 2011 – The Department issued minor revision WDL #W002751-6D-H-M / #ME0100129 to incorporate Special Conditions regarding compliance with the 2010 Clean Water State Revolving Fund Requirements.

June 30, 2011 – City submitted a timely and complete General Application to the Department for renewal of the September 29, 2006 MEPDES permit. The application was accepted for processing on July 5, 2011, and was assigned WDL #W002751-6D-I-R / MEPDES #ME0100129.

October 4, 2011 – The Department issued combination MEPDES permit #ME0100129/ WDL #W002751-6D-I-R for a five-year term.

January 15, 2014 – The Department issued permit modification #ME0100129 / WDL#W002751-6D-K-M to amend a milestone date established in the 10/4/11 permit.

August 25, 2015 – The Department issued minor revision #ME0100129 / WDL#W002751-6D-L-M to incorporate Special Conditions regarding compliance with the 2010 Clean Water State Revolving Fund (CWSRF) Requirements (Asset Management Principal Forgiveness).

September 26, 2016 – The permittee submitted a timely and complete General Application to the Department for renewal of the October 4, 2011 permit (including subsequent minor permit revisions and permit modifications). The application was accepted for processing on the same day and was assigned WDL #W002751-6D-M-R / MEPDES #ME0100129.

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2. PERMIT SUMMARY (cont'd)

c. Source Description: The City's wastewater treatment facility is located on Elm Street in Calais, Maine and has been treating domestic, light industrial, and commercial wastewater generated within the City of Calais since 1969. The following excerpt was taken from the September 26, 2016 renewal application provided by the City:

> "The City of Calais operates a wastewater collection and treatment system that serves about 3,100 people in the City's urban downtown and immediately adjacent areas. About 1,250 connected sewer users discharge sanitary wastes into the sewer system from residential, commercial, and institutional properties. A complex network of sixteen miles of pipe, ten wastewater pump stations, and several hundred manholes conveys the raw sewage to the central treatment plant site on Elm Street.
>
> Typical sizes of the City's collector and interceptor sewers range from eight to twenty-four inches. Some of the City's sewers still date back over one-hundred years old and consist of vitrified clay pipe with open joints or deteoriated asbestos cement pipe. However, significant work has been completed to replace old sewer lines. Since some of the older lines are subject to high groundwater infiltration, the sewer system still experienced seasonal excess flows. In addition, very limited sections of the City's sewer system still are combined and carry both sanitary flow and storm water inflow from street catch basins, roof drains and cellar drains in the same pipes. As a result, the sewer system is subject to periodic high flows from wet weather precipitation and snowmelt events.
>
> Ten wastewater pumping stations are located in the sewer system to lift sewage up over topographical elevation features and to convey the sewage to the treatment plant. Pump stations are located at Baring Street, Stillson Street, King Street, Union Street, Poole Street, Main Street, Calais Avenue, South Street, near the Wal-Mart shopping center, and at Steamboat Street. The Kind Street and Union Street pump stations are major stations that serve significant areas of the collection system and were upgraded in 2005. The Steamboat Street pump station was upgraded in 2005, and the South Street Station in 2007. The remaining stations are small satellite stations that lift wastewater from remote localized service areas up into the adjacent collector sewer system. The City has funding to upgrade both the Main Street and Poole Street pumping stations.
>
> In 2011, the treatment plant emergency power generator, influent/high flow pumping and headworks system, chlorine contact tank, and sludge processing systems were all updated."

2. PERMIT SUMMARY (cont'd)

The permit authorizes the City to receive and introduce into the treatment process or solids handling stream up to a daily maximum of 4,000 GPD of transported wastes (septage wastes) pursuant to *Standards for the Addition of Transported Wastes to Waste Water Treatment Facilities,* 06-096 CMR 555 (last amended February 5, 2009). See Special Condition I of the permit. It is noted that the facility also receives and introduces into the sludge handling waste stream up to 35,000 gallons per *year* of sludge generated at the Passamaquoddy Indian's Pleasant Point wastewater treatment located in Perry, Maine. Transported sludge waste is introduced into Calais' solids handling facility where it is co-mingled with sludge generated by the Calais facility. The dewatered sludge is transported to a composting facility permitted by the Department for further processing.

The collection system does not currently have sufficient capacity to transport the volume of inflow and infiltration (I&I) water experienced during periods of rainfall and snow melt. There are currently five (5) permitted combined sewer overflows (CSOs) outfalls associated with the collection system which are listed in Special Condition J*, Combined Sewer Overflows (CSO),* of the permit.

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

d. Wastewater Treatment: The City of Calais operates a conventional biological wastewater treatment facility. Treatment equipment/units include, but are not limited to, a headworks section with influent bar screen, a Parshall flume structure for flow measurement, a grit removal system, primary sedimentation clarifiers and gravity sludge thickener.

Flows from the primary clarifiers pass through a splitter box and weir gate area which is intended to limit the flow volumes that can enter the secondary treatment system. The intent of this structure is to restrict flows into the aeration basins to only 1.5 MGD and to allow occasional peak flows above that amount to be discharged to the river after seasonal disinfection. A separate chlorine contact reactor is used to chlorinate peak flows.

Normal levels of plant flow less than 1.5 MGD leave the primary clarifiers and receive secondary biological treatment using three 75,000-gallon reactors with mechanical surface aerators followed by two final settling clarifiers. Sludge handling equipment includes a 15,000-gallon storage tank and belt filter press. It is noted the Calais facility accepts waste activate sludge from the Passamaquoddy Indian's Pleasant Point waste water treatment facility located in Perry, Maine.

The original 1969 plant design included an inlet overflow structure and gate to restrict peak flows into the plant to just under the facility's hydraulic capacity. This was sealed off during the 1990 upgrade. However, given the history of washouts and flooding of the treatment facility during wet weather events, the City re-opened the overflow as a CSO point.

2. PERMIT SUMMARY (cont'd)

Secondary treated effluent is seasonally disinfected with sodium hypochlorite and conveyed for discharge to the St. Croix River via a single outfall pipe measuring 18 inches in diameter that is submerged to a depth of 5.6 feet below mean low water level. Occasional peak storm water flows receiving primary treatment only (CSO-related bypass of secondary treatment) in excess of 1.8 MGD are discharged to the St. Croix River via a single outfall pipe measuring 18 inches in diameter that terminates above the surface of the river.

It is noted Outfall #003 (CSO located just prior to the headworks of treatment plant) discharges to the St. Croix River via two outfall pipes each measuring 18 inches in diameter that terminate above the surface of the river.

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(7)(B)(1) classifies the St. Croix River at the point of discharge for Outfall #001A, Outfall #002A, and four CSO outfalls (Tidal waters of the St. Croix River and its tidal tributaries lying westerly of longitude 67'-14'-28'W) as Class SC. *Standards for classification of estuarine and marine waters,* 38 M.R.S. § 465-B(3) describes the standards for Class SC waters.

38 M.R.S. § 467(13)(A)(4) classifies the St. Croix River at the point of discharge for CSO Outfall # 006 (King Street PS) (From the Woodland Dam to tidewater, those waters lying within the State, including all impoundments) as Class C. *Standards for classification of fresh surface waters*, 38 M.R.S. § 465(4) describes the standards for Class C 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 22.17 miles of the main stem of the St. Croix River, from Grand Falls to tidewater (which includes the discharge of CSO Outfall#006 (King St. PS), (ABD Assessment Unit ID ME0105000108_505R) as Category 2: Rivers and Streams Attaining Some Designated Uses – Insufficient Information for Other Uses.

It should be noted that this Assessment Unit is incorrectly listed as a Class A waterbody in the 2012 report. In fact, only the upper portion of the unit (from Grand Falls to the upstream end of the Woodland Impoundment is Class A, while the lower end (from the Woodland Dam to tidewater) is Class C. (The Woodland Impoundment itself is a separate Assessment Unit, ME0105000108_505R01). The Department is working to split assessment unit ME0105000108_505R into two for the 2016 report to reflect the classification correctly.

The relevant waterbody is also listed as Category 4-A: "Rivers and Streams with Impaired Use, TMDL Complete." 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 waters, and many fish from any given water, 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."

The St. Croix River-Passamaquoddy Bay 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 Maine Department of Marine Resources (MEDMR) Pollution Area #62 (See **Attachment D** of this Fact Sheet) St. Croix River *(Calais, Robbinston, Perry)* currently has prohibited areas north of Hinton Point, a restricted area in Mill Cove and a Conditionally Approved area in Lewis Cove. 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.

5. RECEIVING WATER QUALITY CONDITIONS (cont'd)

Failure to notify the MEDMR of a malfunction in the disinfection system at the treatment facility, discharges classified as sanitary sewer overflows (SSOs) or CSOs may result in the harvesting and marketing of shellfish that is not fit for human consumption.

Calais has developed and implemented a CSO Master Plan for the elimination of all CSO points associated with the Calais POTW. The Department acknowledges that elimination of all CSO points is a costly and long-term project. As Calais's treatment plant and sewer collection system are upgraded and maintained in accordance with 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 1.5 MGD is being carried forward in this permitting action.

The Department reviewed 53 Discharge Monitoring Reports (DMRs) that were submitted for the period of November 1, 2011 through March 31, 2016. A review of data indicates the following:

Flow

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly Average	1.5	0.16 – 1.46	0.6

This permitting action is re-establishing a daily maximum monitoring and reporting condition for daily maximum flow. This condition was mistakenly omitted from the previous permit.

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

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 1.5 MGD), dilution factors for the facility are as follows.

The Department has made a determination that, at the point of discharge, freshwater river flow is dominant and has therefore calculated the dilution factors for this facility in accordance with the freshwater protocol at 06-096 CMR 530(4)(A) as follows:

Mod. Acute: ¼ 1Q10[(1)] = 218 cfs $\Rightarrow \frac{(218 \text{ cfs})(0.6464) + (1.5 \text{ MGD})}{(1.5 \text{ MGD})} = 95:1$

Acute: 1Q10 = 875 cfs[(2)] $\Rightarrow \frac{(875 \text{ cfs})(0.6464) + (1.5 \text{ MGD})}{(1.5 \text{ MGD})} = 378:1$

Chronic: 7Q10 =875 cfs[(2)] $\Rightarrow \frac{(875 \text{ cfs})(0.6464) + (1.5 \text{ MGD})}{(1.5 \text{ MGD})} = 378:1$

Harmonic Mean: = 1,928 cfs $\Rightarrow \frac{(1{,}928 \text{ cfs})(0.6464) + (1.5 \text{ MGD})}{(1.5 \text{ MGD})} = 832:1$

[(1)] 06-096 CMR 530(4)(B)(1) states,

> Analyses using numerical acute criteria for aquatic life must be based on 1/4 of the 1Q10 stream design flow to prevent substantial acute toxicity within any mixing zone and to ensure a zone of passage of at least 3/4 of the cross-sectional area of any stream as required by Chapter 581. Where it can be demonstrated that a discharge achieves rapid and complete mixing with the receiving water by way of an efficient diffuser or other effective method, analyses may use a greater proportion of the stream design flow, up to and including all of it, as long as the required zone of passage is maintained.

[(2)] The 1Q10 and 7Q10 are based on a minimum flow of 850 cfs being maintained at the paper mill in Baileyville, approximately 10 miles upstream, plus the drainage area between the mill and the discharge from the Calais wastewater treatment facility.

The City's outfall pipe is not fitted with diffusers or other mechanisms to assist in complete and rapid mixing of the effluent with the receiving waters. Therefore, the Department is utilizing the default stream flow of ¼ of the 1Q10 in acute evaluations pursuant to 06-096 CMR 530.

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

c. BOD_5 and TSS: Previous permitting action established, and this permitting action is carrying forward, monthly average and weekly average BOD_5 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 did not establish daily maximum BOD_5 and TSS concentration limits of 50 mg/L to encourage the City to treat as much wastewater as possible through the secondary treatment system during wet weather events. The technology-based monthly average and weekly average mass limits of 375 lbs./day and 563 lbs./day, respectively, established in the previous permitting action for BOD_5 and TSS are based on the monthly average flow limit of 1.5 MGD and the applicable concentration limits, and are also being carried forward in this permitting action.

Mass limitations were derived as follows:

Monthly Average	(30 mg/L)(8.34 lbs./gallon)(1.5 MGD) =	375 lbs./day
Weekly Average	(45 mg/L)(8.34 lbs./gallon)(1.5 MGD) =	563 lbs./day

This permitting action is also carrying forward the requirement for a minimum of 85% removal of BOD_5 & TSS pursuant to 06-096 CMR 525(3)(III)(a)(3) and (b)(3).

A summary of BOD_5 data as reported on the DMRs submitted to the Department for the period of November 1, 2011 – April 1, 2016 is as follows:

BOD_5 Mass

Value	Limit (lbs./day)	Range (lbs./day)	Average (lbs./day)
Monthly Average	375	11 – 160	56
Weekly Average	563	14 – 327	97
Daily Maximum	Report	15 – 497	147

BOD_5 Concentration

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	4 - 13	8
Weekly Average	45	6 - 17	10
Daily Maximum	Report	6 - 19	12

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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 November 1, 2011 – April 1, 2016 is as follows:

TSS Mass

Value	Limit (lbs./day)	Range (lbs./day)	Average (lbs./day)
Monthly Average	375	15 – 162	55
Weekly Average	563	16 – 328	105
Daily Maximum	Report	19 – 364	161

TSS Concentration

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	5 – 12	8
Weekly Average	45	6 – 14	10
Daily Maximum	Report	7 – 21	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 (November 1, 2011 – April 1, 2016). A review of the mass monitoring data for BOD_5 & TSS indicates the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as 15% for BOD_5 and TSS. According to Table I of the USEPA Guidance and Department Guidance, the monitoring requirement can be reduced to 1/Month for BOD_5 and TSS. However, taking into consideration both the USEPA and Department Guidance, this permitting action is reducing the monitoring frequency for BOD_5 and TSS from 2/Week to 1/Week.

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 Best Professional Judgement (BPJ) of BPT for secondary treated wastewater.

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

A review of the DMR data for the period of November 1, 2011 through April 1, 2016 (n = 53) indicates the daily maximum settleable solids concentration values ranged from < 0.00 mL/L to 0.10 mL/L. This permitting action is maintaining the current monitoring frequency of 5/Week as a reduction in monitoring was granted in the previous permit.

e. Fecal Coliform Bacteria: The previous permitting action established, and this permitting action is carrying forward, seasonal 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.

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

Fecal coliform bacteria (DMR = 20)

Value	Limit (col/100 mL)	Range (col/100 mL)	Mean (col/100 mL)
Monthly Average	15	<1 – 2	1
Daily Maximum	50	1 – 6	2

This permitting action is carrying forward the minimum monitoring frequency requirement for fecal coliform bacteria of two times per week (2/week).

f. Total Residual Chlorine (TRC): The previous permitting action established, and this permitting action is carrying forward, a daily maximum technology-based concentration limit of 1.0 mg/L as well as a minimum monitoring frequency requirement of once per day at all times during the year when elemental chlorine or chlorine based compounds are being used. 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	84:1	1.1 mg/L
Chronic	0.0075 mg/L	335:1	2.51 mg/L

The Department has established a daily maximum BPT limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine-based compounds. For facilities that dechlorinate the discharge in order to meet water quality based thresholds, the Department has established daily maximum and monthly average BPT limits of 0.3 mg/L and 0.1 mg/L, respectively. The City currently does not dechlorinate the effluent prior to discharge; therefore the BPT limit of 1.0 mg/L is being carried forward for Outfall #001A.

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

A summary of TRC data as reported on the monthly DMRs (n = 20) for the period of November 1, 2011 – April 1, 2016 is as follows:

TRC

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	1.0	0.06 – 0.90	0.2

For effluent discharged from Outfall #002A, 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) which is being carried forward in this permitting action. A review of the DMR data for the period of November 1, 2011 – April 1, 2016 (n = 53) indicates the pH range was 6.1 – 7.9 standard units. Due to the compliance history regarding this parameter, the Department is reducing the monitoring frequency from 1/Day to 2/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 exceedances of narrative or numerical water quality criteria.

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

Based on the criteria, the permittee's facility is considered a Level III discharger as the chronic dilution of the receiving water is ≥ 100:1 but < 500:1. 06-096 CMR 530(2)(D) specifies default WET, priority pollutant, and analytical chemistry test schedules for Level III dischargers as follows.

Surveillance level testing

Level	WET Testing	Priority pollutant testing	Analytical chemistry
III	1 per year	Not Required	1 per year

Screening level testing

Level	WET Testing	Priority pollutant testing	Analytical chemistry
III	1 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 shall apply the statistical approach in Section 3.3.2 and Table 3-2 of USEPA's "Technical Support Document for Water Quality-Based Toxics Control" (USEPA Publication 505/2-90-001, March, 1991, EPA, Office of Water, Washington, D.C.) to data to determine whether water-quality based effluent limits must be included in a waste discharge license. Where it is determined through this approach that a discharge contains pollutants or WET at levels that have a reasonable potential to cause or contribute to an exceedance of water quality criteria, appropriate water quality-based limits must be established in any licensing action.

On April 27, 2016, the Department conducted a statistical evaluation on the most recent 60 months of WET test results on file with the Department for the Calais POTW in accordance with the statistical approach outlined above. The 4/27/16 statistical evaluation indicates the discharge from Calais 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, in part that Level III dischargers "… may be waived from conducting surveillance testing for individual WET species or chemicals provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedance as calculated pursuant to section 3(E)."

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 K. *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 shall 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 exceedance 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 June 9, 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.

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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 #W002571-5L-E-R by establishing interim monthly average and daily maximum effluent concentration limits of 16.7 parts per trillion (ppt) and 25.1 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 March 2009 through September 2015 is as follows:

Mercury (n = 17)

Value	Limit (ng/L)	Range (ng/L)	Mean (ng/L)
Monthly Average	16.7	1.50 – 22.00	8
Daily Maximum	25.1		

On February 6, 2012, the Department issued a minor revision to the October 4, 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. Total Nitrogen: The USEPA requested the Department evaluate the reasonable potential for the discharge of total nitrogen to cause or contribute to non-attainment of applicable water quality standards in marine waters, namely dissolved oxygen (DO) and marine life support. The permittee voluntarily participated in a Department-coordinated project to measure effluent nitrogen, and submitted monthly samples from May-October 2015. The mean value of the permittee's five total nitrogen samples was 11.2 mg/L. For reasonable potential evaluations, the Department considers 11.2 mg/L to be representative of total nitrogen discharge levels from the Calais facility.

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

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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. To date, one known survey was completed within the tidal portion of the St. Croix River to document geological features, and also assessed the presence/absence of eelgrass. This survey occurred in the 1970's by Timson of the Maine Geological Survey, and denoted mud and coarse grained intertidal flats, and tidal channel surrounding the Calais POTW discharge points. Maine Department of Marine Resources eelgrass mapping projects in 1994 and 2009 extended north only to the mouth of the St. Croix River, and so the nearest documented eelgrass (13-16 acres of predominantly 10-40% cover) is approximately 18 km downstream of the Calais discharge points. Independent of these surveys, it is unlikely that eelgrass of any substantial extent would exist in close 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 discharge 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 378:1. Far field dilutions are significantly higher than the near-field dilution, depending on the location of the outfall pipe and nature of the receiving waterbody. The permittee's facility discharges via a single outfall pipe measuring 18 inches in diameter at a depth of 5.6 feet below mean low water level to the tidal portion of the St. Croix River. The daily tidal exchange in the upper estuary provides approximately 3,500 MGD of additional mixing volume for dilution. This translates to a far field dilution of approximately 1437:1 for the Calais discharge, when including the return of some diluted discharge upriver each tide cycle. Using this far-field dilution factor, the increase in total nitrogen concentration within the upper St. Croix River estuary as a result of the discharge is estimated to be 0.008 mg/L.

Total nitrogen concentrations in effluent = 11.2 mg/L
Far-field dilution factor = 1437:1

In-stream concentration after dilution: $\frac{11.2 \text{ mg/L}}{1437} = 0.008 \text{ mg/L}$

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

The Department and external partners have been collecting ambient total nitrogen data along Maine's coast. For the upper St. Croix River estuary, only one known water quality sampling event occurred in 2001 for which no total nitrogen data are available. However, the Department completed sampling just below Head of Tide on the nearby Narraguagus River from July-September 2015, and based on correspondence with a local environmental chemist with experience on the freshwater portion of Downeast Rivers, the Department is using best professional judgment in stating that the nutrient chemistry of the upper Narraguagus River estuary is likely similar to that of the upper St. Croix River estuary. The Downeast Rivers can be classified as having nitrogen that is largely organically bound and thus not available for rapid uptake by phytoplankton and benthic macrophytes. The mean value for the head of tide site on the Narraguagus River was 0.47 mg/L (n = 4), and will be used as the ambient value for the upper St. Croix River until further data collection can occur in Downeast rivers near head of tide to increase sample size and better understand typical nutrient concentrations.

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 0.47 mg/L + 0.008 mg/L = 0.478 mg/L. The in-stream concentration value of 0.478 mg/L is greater 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. However, since the Department does not have sufficient confidence that this ambient value is representative of ambient conditions in the upper St. Croix River near head of tide due to a lack of estuary-specific data, the Department plans to refine this ambient value based on additional monitoring to be conducted in Downeast rivers in the next permit cycle.

Based on 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 Calais facility 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.

l. <u>CSO-Related Bypass of Secondary Treatment (Outfall #002A-Primary Treated Wastewater)</u>: 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.

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

The monitoring requirements for the parameters in Special Condition A(3) of this permit Flow, Overflow Occurrences, BOD_5, TSS, Fecal Coliform bacteria, and TRC are being carried forward in this permitting action. It is noted that this permitting action is not carrying forward the reporting conditions for Surface Loading Rate, BOD_5 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.

A review of the DMR data for the period November 2011 - April 2016 indicates the following:

Overflow Occurrences

Year	Limit (# of days)	Total (# of days)
2012	Report	20
2013	Report	22
2014	Report	36
2015	Report	30

Flow – Monthly Average in Million Gallons

Year	Limit	Range	Total
2012	Report	0.00 – 0.59	2.46
2013	Report	0.14 – 0.57	4.35
2014	Report	0.08 – 1.81	6.24
2015	Report	0.10 – 0.77	2.87

Flow – Daily Maximum in Million Gallons

Year	Limit	Range	Total
2012	Report	0.003 – 1.13	4.433
2013	Report	0.14 – 2.29	9
2014	Report	0.081 – 2.12	10.8
2015	Report	0.16 – 1.502	5.74

Fecal coliform bacteria

Value	Limit (col/100 mL)	Range (col/100 mL)	Mean (col/100 mL)
Daily Maximum	200	6 – 40	21

TRC

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	1.0	0.00 – 0.06	0.04

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 shall 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 Calais 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 1,250 gpm (1.8 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 primary treatment prior to discharge (Outfall #002A).

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 that do not blend primary and secondary effluent prior to discharge, such as the permittee's facility, 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 CWA[7], the Department has determined that limitations for 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 BOD_5 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 BOD_5 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 Calais 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 #002A). 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 pursuant to CSO Control Policy at 59 Fed. Reg. 18694.

For the discharge of primary-treated effluent to the St. Croix River via Outfall #002A, the Department is establishing daily maximum technology-based effluent limitations for BOD_5 and TSS.

Analysis of Water Quality Impacts During Discharge of Primary and Secondary Effluent

m. Flow, BOD_5 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 St. Croix 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 St. Croix River estuary is approximately 3,500 MGD. This translates to a far field dilution of approximately 1437:1 for the Calais discharge (1.5 MGD). However, during wet weather events when the additional flows are being discharged from Calais, the dilution must be adjusted. In the calculations below, adjustments for said flows are reflected in the dilution factor.

The calculations for BOD and TSS are as follows:

BOD
Highest Daily Maximum mass value for Secondary Effluent = 497 lbs. in December 2011
Secondary Effluent Flow = 3.97 MGD
Highest Daily Maximum mass value for Primary Effluent = 1,255 lbs. in November 2014
Primary Effluent Flow = 2.12 MGD

An addition of 6.09 MGD to the receiving water results in a dilution factor of 574.7:1.

1752 lbs. ÷ 8.34 (conversion factor) = 210 gallons
210 gallons ÷ 6.09 (Flow, MGD) = 34.5 mg/L

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

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

34.5 mg/L = **0.06 mg/L** (< 2 mg/L is not measurable)
574.7 (dilution factor)

TSS
Highest Daily Maximum mass value for Secondary Effluent = 364 lbs. in November 2013
Secondary Effluent Flow = 9.9 MGD
Highest Daily Maximum mass value for Primary Effluent = 1,238 lbs. in November 2014
Primary Effluent Flow = 2.12 MGD

An addition of 12.02 MGD to the receiving water results in a dilution factor of 291:1.

1,602 lbs. ÷ 8.34 (conversion factor) = 192 gallons
192 gallons ÷ 12.02 (Flow, MGD) = 16 mg/L

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

16 mg/L= **0.05 mg/L** (< 2 mg/L is not measurable)
291(dilution factor)

Establishing Primary Effluent Limits for Calais

BOD
If we assume, during a wet weather event, that the facility is discharging secondary-treated water at full permitted flow (1.5 MGD), and in compliance with the daily maximum TBEL-derived discharge limit (50 mg/L), then the Daily Maximum secondary effluent mass limit is:

1.5 MGD x 50 mg/L x 8.34 (conversion factor) = 626 lbs./day

The highest BOD value from primary-treated water in the previous five years was 1,752 lbs./day (flow for that event was 6.09 MGD).

The combined mass from the secondary and primary would be 2,378 lbs./day. The combined flow for primary and secondary would be 7.59 MGD.

2,378 lbs. ÷ 8.34 (conversion factor) = 285.1 gallons
285.1 gallons ÷ 7.59 (Flow, MGD) = **37.6 mg/L**

An addition of 7.59 MGD to the receiving water results in a dilution factor of 461:1.

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

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

37.6 mg/L = **0.08 mg/L** (< 2 mg/L is not measurable)
461 (dilution factor)

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

1.5 MGD x 50 mg/L x 8.34 (conversion factor) = 626 lbs./day

The highest TSS value from primary-treated water in the previous five years was 1,602 lbs./day (flow for that event was 12.02 MGD).

The combined mass from the secondary and primary is 2,228 lbs./day. The combined flow for primary and secondary is 13.52 MGD.

2,228 lbs.÷ 8.34 (conversion factor) = 267 gallons
267 gallons ÷ 13.52 (Flow, MGD) = **19.76 mg/L**

An addition of 13.52 MGD to the receiving water results in a dilution factor of 259:1

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

19.76 mg/L= **0.08 mg/L** (< 2 mg/L is not measurable)
259 (dilution factor)

Based on the BOD_5 and TSS values (blended effluent) cited, the Department has made a best professional judgment, maximum primary effluent discharge limitations of **1,752** lbs./day for BOD_5 and **1,602** 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 St. Croix 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 BOD_5 and TSS for the discharge of primary and secondary blended effluents when the influent to the wastewater treatment facility exceeds a flow rate of 1250 gallons per minute (1.8 MGD) for 60 minutes (peak hourly flow) 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 BOD_5 and TSS.

7. COMBINED SEWER OVERFLOWS

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

Outfall No./Name	Outfall Location	Receiving Water and Class
003 Headworks	Treatment Plant	St. Croix River, Class SC
004 Steamboat Street PS	Steamboat Street	St. Croix River, Class SC
005 Union Street PS	Union Street	St. Croix River, Class SC
006 King Street PS	King Street	St. Croix River, Class C
007 South Street PS	South Street	St. Croix River, Class SC

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 "Sewer System Master Plan for CSO Abatement City of Calais" dated August 2006 and revised April 2007 was approved by the Department on June 18, 2007. An "Updated Sewer System Master Plan for CSO Abatement, City of Calais" was submitted by Olver Associates on behalf of the city in December 2014, and revised December 2015 based on comments by the Department dated July 30, 2015 and subsequently approved on January 7, 2016.

Calais 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 J, *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 City of Calais 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 C or Class SC classification.

9. PUBLIC COMMENTS

Public notice of this application was made in the *Calais Advertiser* newspapers on or about September 29, 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

LEGEND

- RAILROAD TRACKS
- EXISTING SEWER PIPE (SIZE ABOVE)
- EXISTING FORCE MAIN
- EXISTING SEWER MANHOLE
- EXISTING PUMP STATION
- NEW SEWER PIPE (SIZE ABOVE)
- RELINED EXISTING SEWER PIPE
- NEW FORCE MAIN
- NEW SEWER MANHOLE
- (2000) REHABILITATED EXISTING SEWER MANHOLE (YEAR REHABILITATED)
- NEW PUMP STATION

500' 0 250' 500' 1000' 2000'

ST. STEPHEN
NEW BRUNSWICK

ST. CROIX RIVER

CANADA
U.S.A.

INTERNATIONAL BRIDGE

MILLTOWN BRIDGE

CSO PUMP STATION
(INSTALLED 2006)

SHOPPING CENTER

WALMART

PUBLIC WORKS, FIRE & POLICE STATION

CEMETERY

HOSPITAL

LANDFILL

INDUSTRIAL PARK

FILTER PLANT

(ONGOING REPLACEMENT 2016)

PUMP STATION DESCRIPTIONS

1. BARING ST. PUMP STATION
2. STILLSON ST. PUMP STATION
3. KING ST. PUMP STATION (CSO #006)
4. WALMART PUMP STATION
5. CALAIS AVE. PUMP STATION
6. UNION ST. PUMP STATION (CSO #005)
7. POOLE ST. PUMP STATION
8. MAIN ST. PUMP STATION
9. SOUTH ST. PUMP STATION (CSO #007)
10. STEAMBOAT ST. PUMP STATION (CSO #004)
11. HEADWORKS CSO PUMP STATION (CSO #003)

NOTE:
THE LOCATIONS OF SYSTEM COMPONENTS AS SHOWN ARE BASED ON AVAILABLE MAPPING AND HAVE NOT BEEN FIELD CONFIRMED. THE INFORMATION IS SCHEMATIC AND IS NOT INTENDED TO REPRESENT EXACT LOCATIONS OF SYSTEM COMPONENTS.

SOURCES:
"SEWER SYSTEM MAP, CITY OF CALAIS, MAINE"
BY DIRGO ENGINEERING
DATED NOVEMBER 9, 1994

"CALAIS, MAINE INFILTRATION/INFLOW STUDY"
BY EDWARD C. JORDAN CO., INC.
DATED JANUARY, 1980

CALAIS WASTEWATER TREATMENT PLANT

FIGURE 1: CALAIS SEWER SYSTEM AND PUMP STATION LOCATIONS

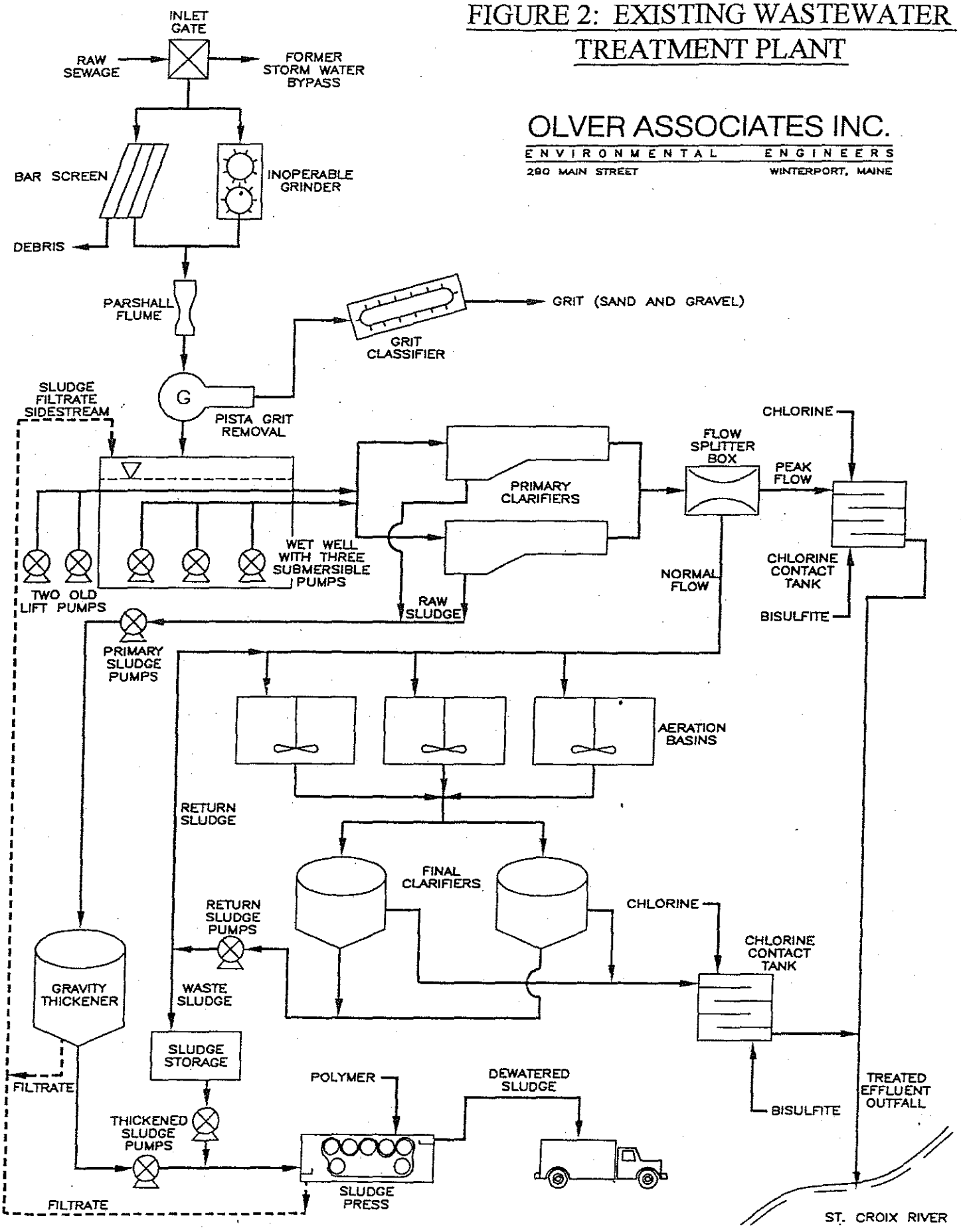
OLVER ASSOCIATES INC.
ENVIRONMENTAL ENGINEERS
290 MAIN STREET WINTERPORT, MAINE

ATTACHMENT B

CITY OF CALAIS, MAINE

FIGURE 2: EXISTING WASTEWATER TREATMENT PLANT

OLVER ASSOCIATES INC.
ENVIRONMENTAL ENGINEERS
290 MAIN STREET WINTERPORT, MAINE



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

COMMENTS:

Name (printed): _____

Signature:_____Date: _____

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

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

Scheduled Toxicity Testing for the next calendar year

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

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

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

ATTACHMENT D

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

PAUL R. LEPAGE
GOVERNOR

PATRICK C. KELIHER
COMMISSIONER

Shellfish Harvesting Area Classification-Notification of Changes

March 14, 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 change to Area No. 62, St. Croix River (Calais, Robbinston, Perry): This notice downgrades the seasonal conditional area (formerly 62, D.2) to Restricted in Mill Cove (Robbinston) due to water quality no longer meeting approved standards during the open months. 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 from the shores, flats and waters of the following Prohibited area(s):

1. St. Croix River (Calais and Robbinston): north of a line beginning ~~on the shore~~ at the eastern most prominence of Hinton Point (Robbinston) running east to the international US and Canadian border; AND west of the international US and Canadian border.

2. Lewis Cove (Perry): west of a line beginning at a red painted post located on the southern shore of Lewis Cove approximately 380 yards from the end of the Horse Landing Road then running northwest to a red painted post on the opposite shore.

B. Effective immediately, because of pollution it shall be unlawful to dig, take or possess any clams, quahogs, oysters or mussels from the shores, flats and waters of the following Restricted area(s) without a special MDMR permit:

1. Loring Cove (Perry): west of a line beginning at the northeast tip of Loring Cove, and running southeast to an unnamed point on the opposite shore, forming the southeast prominence of Loring Cove.

<u>2. Mill Cove (Robbinston): northwest of a line beginning at the mouth of an unnamed stream located approximately 175 yards east of Route 1, then running northeast to the southern tip of Mill Point.</u>

D. Effective immediately, because of seasonal pollution, it shall be unlawful to dig, take or possess any clams, quahogs, oysters or mussels from the shores, flats and waters of the following Conditionally Approved area(s) during the closed dates:

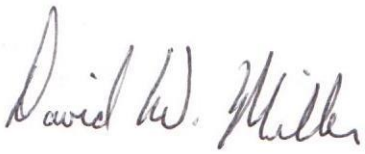
1. Lewis Cove (Perry): west of a line beginning at a red painted post located on the northern shore of Lewis Cove approximately 175 yards southeast from the end of the Devereux Rd then running southwest to a red painted post located on the southern shore of Lewis Cove; AND east of a line beginning at a red painted post located approximately 380 yards from the

end of the Horse Landing Road then running northwest to a red painted post located on the opposite shore. This area is closed August 1st through November 30th.

~~2. Mill Cove (Robbinston): northwest of a line beginning at the mouth of an unnamed stream located approximately 175 yards east of Route 1, and then running northeast to the southern tip of Mill Point. This area is closed July 1st through December 30th.~~

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,



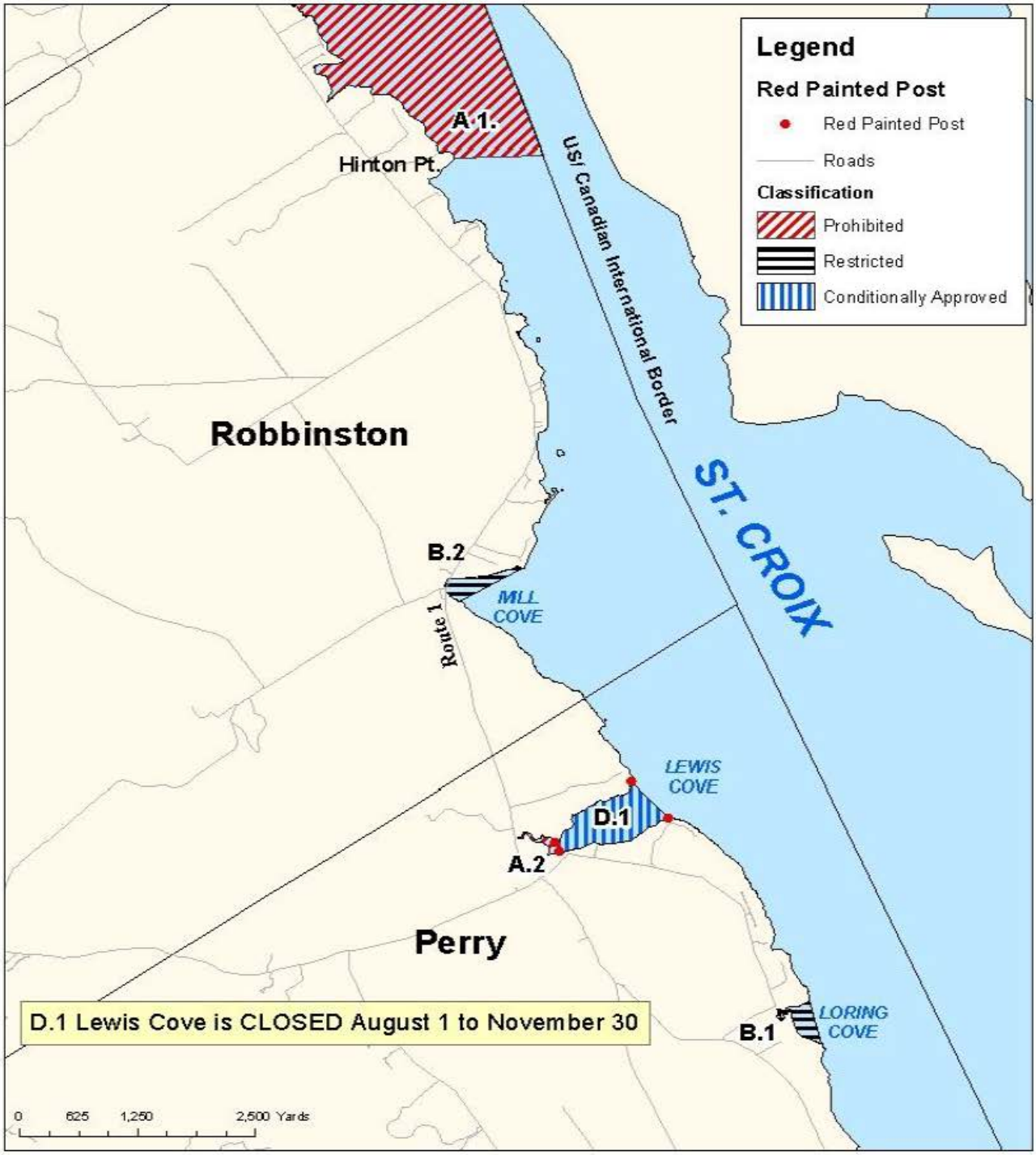
David W. Miller
Commissioner's Designee
Eastern Maine Growing Area

2:45 PM
(*Effective Time*)

Maine Department of Marine Resources

Pollution Area No.62

St. Croix River (Calais, Robbinston, Perry)



http://www.Maine.gov/dmr

PHONE: (207) 624-6550 FAX: (207) 624-6024

ATTACHMENT E

FACILITY WET EVALUATION REPORT

Facility: CALAIS **Permit Number:** ME0100129 **Report Date:** 8/3/2016

Receiving Water: ST. CROIX RIVER **Rapidmix:** N

Diluition Factors: 1/4 Acute: 84.4949 Acute: 334.980 Chronic: 334.9797

Effluent Limits: Acute (%): 1.194 Chronic (%): 0.299 **Date range for Evaluation: From** 03/Aug/2011 **To:** 03/Aug/2016

Test Type: **A_NOEL**

Test Species:	Test Date	Result (%)	Status
MYSID SHRIMP	10/27/2015	100.000	OK

Species Summary:

Test Number: 1 **RP:** 6.200 **Min Result (%):** 100.000 **RP factor (%):** 16.129 **Status:** OK

Test Type: **C_NOEL**

Test Species:	Test Date	Result (%)	Status
SEA URCHIN	10/27/2015	100.000	OK

Species Summary:

Test Number: 1 **RP:** 6.200 **Min Result (%):** 100.000 **RP factor (%):** 16.129 **Status:** OK

ATTACHMENT F

FACILITY PRIORITY POLLUTANT DATA REPORT

Data Date Range: 27/Apr/2011 - 27/Apr/2016

Showing only those values not reported as a less than result

Facility name: **CALAIS** Permit Number: **ME0100129**

Parameter:	ALUMINUM	**Test date**	**Result (ug/l)**	**Lsthan**
		06/27/2011	100.000	N
Parameter:	AMMONIA	**Test date**	**Result (ug/l)**	**Lsthan**
		06/27/2011	800.000	N
		01/19/2016	760.000	N
Parameter:	ARSENIC	**Test date**	**Result (ug/l)**	**Lsthan**
		06/27/2011	13.000	N
		01/19/2016	2.900	N
Parameter:	CADMIUM	**Test date**	**Result (ug/l)**	**Lsthan**
		06/27/2011	0.400	N
Parameter:	CHLOROFORM	**Test date**	**Result (ug/l)**	**Lsthan**
		06/27/2011	3.500	N
Parameter:	COPPER	**Test date**	**Result (ug/l)**	**Lsthan**
		06/27/2011	6.000	N
		01/19/2016	16.100	N
Parameter:	CYANIDE	**Test date**	**Result (ug/l)**	**Lsthan**
		01/19/2016	11.000	N
Parameter:	DICHLOROBROMOMETHANE	**Test date**	**Result (ug/l)**	**Lsthan**
		06/27/2011	1.600	N
Parameter:	LEAD	**Test date**	**Result (ug/l)**	**Lsthan**
		06/27/2011	3.000	N
		01/19/2016	0.295	N
Parameter:	MERCURY	**Test date**	**Result (ug/l)**	**Lsthan**
		06/30/2011	0.009	N
		09/30/2011	0.009	N
		12/19/2011	0.008	N
		03/30/2012	0.022	N
		06/28/2012	0.010	N
		11/06/2013	0.003	N
		05/14/2014	0.010	N
		09/25/2015	0.004	N
Parameter:	NICKEL	**Test date**	**Result (ug/l)**	**Lsthan**
		01/19/2016	1.440	N
Parameter:	SALINITY	**Test date**	**Result (ug/l)**	**Lsthan**
		06/27/2011	27.000	N
Parameter:	SELENIUM	**Test date**	**Result (ug/l)**	**Lsthan**
		06/27/2011	11.000	N
Parameter:	TOLUENE	**Test date**	**Result (ug/l)**	**Lsthan**
		06/27/2011	26.000	N
Parameter:	ZINC	**Test date**	**Result (ug/l)**	**Lsthan**

FACILITY PRIORITY POLLUTANT DATA REPORT

Data Date Range: 27/Apr/2011 - 27/Apr/2016

Showing only those values not reported as a less than result

Facility name: **CALAIS** Permit Number: **ME0100129**

06/27/2011	32.000	N
01/19/2016	34.700	N

Facility name: **CITY OF CALAIS WWTP** Permit Number: **ME0100129**

Parameter: AMMONIA	**Test date**	**Result (ug/l)**	**Lsthan**
	10/27/2015	130.000	N
Parameter: ARSENIC	**Test date**	**Result (ug/l)**	**Lsthan**
	10/27/2015	3.400	N
Parameter: COPPER	**Test date**	**Result (ug/l)**	**Lsthan**
	10/27/2015	10.100	N
Parameter: LEAD	**Test date**	**Result (ug/l)**	**Lsthan**
	10/27/2015	0.379	N
Parameter: NICKEL	**Test date**	**Result (ug/l)**	**Lsthan**
	10/27/2015	1.610	N
Parameter: SALINITY	**Test date**	**Result (ug/l)**	**Lsthan**
	10/27/2015	0.000	N
Parameter: ZINC	**Test date**	**Result (ug/l)**	**Lsthan**
	10/27/2015	28.400	N