STATE OF MAINE
DEPARTMENT OF -
ENVIRONMENTAL PROTECTION -

PAUL R. LEPAGE -
GOVERNOR -

PAUL MERCER
COMMISSIONER

October 19, 2016

Mr. Scott M. Firmin, P.E.
Portland Water District
225 Douglass St., Box 3553
Portland, ME. 04104
sfirmin@pwd.org

Sent via electronic mail
Delivery confirmation requested

RE: *Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0102121*
Maine Waste Discharge License (WDL) Application #W006751-6C-J-R
Proposed Draft MEPDES Permit - Renewal

Dear Mr. Firmin:

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 19, 2016 and ends on Monday, November 21, 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 21, 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: Barry Mower, DEP
Pamela Parker, DEP
Matt Hight, DEP
Lori Mitchell, DEP
Sean Mahoney, CLF
Kathleen Leyden, DACF
Environmental Review, DMR
David Webster, USEPA
David Pincumbe, USEPA
Alex Rosenberg, USEPA
Olga Vergara, USEPA
Marelyn Vega, USEPA
Richard Carvalho, USEPA
Ivy Frignoca, FOCB

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

DEPARTMENT ORDER

IN THE MATTER OF

PORTLAND WATER DISTRICT		)	MAINE POLLUTANT DISCHARGE
CAPE ELIZABETH		)	ELIMINATION SYSTEM PERMIT
CUMBERLAND COUNTY, MAINE		)	
PUBLICLY OWNED TREATMENT WORKS		)	AND
ME0102121		)	WASTE DISCHARGE LICENSE
W006751-6C-J-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 Portland Water District (PWD/Permittee), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

On June 21, 2016, the Department accepted as complete for processing an application from PWD for renewal of combination Waste Discharge License (WDL) # W006751-6C-H-R / Maine Pollutant Discharge Elimination System (MEPDES) permit # ME0102121, which was issued by the Department on December 5, 2011 for a five-year term. The 12/5/11 permit authorized the monthly average discharge of an unspecified quantity of secondary treated wastewater from a publicly owned treatment works (POTW) to Peabbles Cove, Class SB, in Cape Elizabeth, Maine.

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PERMIT SUMMARY

a. Terms and conditions

This permitting action is different from the December 5, 2011 permit in that it:

1. Eliminates the waiver for percent removal requirements for biochemical oxygen demand (BOD_5) and total suspended solids (TSS) when influent strength is less than 200 milligrams per liter (mg/L);

2. Eliminates stipulations associated with Special Conditions K. *Asset Management Program* (AMP) and L. *Repair and Replacement Reserve Account* from the previous permit, as the terms of those conditions have been fulfilled;

3. Reduces the monitoring and reporting requirement for BOD_5 and TSS from 1/Week to 2/Month;

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. Amends the WET surveillance monitoring period to years 1, 2, 3, and 5 of the term of the permit; and

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

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CONCLUSIONS

BASED on the findings in the attached and incorporated Fact Sheet dated October 19, 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 discharge 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 PORTLAND WATER DISTRICT to discharge an unspecified quantity of secondary treated sanitary wastewater to Peabbles Cove, Class SB, in Cape Elizabeth, 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 March 3, 2016
Date of application acceptance March 4, 2016

Date filed with Board of Environmental Protection _____

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

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge secondary treated sanitary wastewater from **Outfall #001** to Peabbles Cove in Cape Elizabeth. Such discharges are limited and must be monitored by the permittee as specified below [(1)].

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow *[50050]*	Report (MGD) *[03]*	---	Report (MGD) *[03]*	---	---	---	Continuous *[99/99]*	Recorder *[RC]*
BOD_5 *[00310]*	130 lbs./day *[26]*	195 lbs./day *[26]*	Report lbs./day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	2/Month[(2)] *[02/30]*	Composite *[24]*
BOD_5 % Removal[(3)] *[81010]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
TSS *[00530]*	130 lbs./day *[26]*	195 lbs./day *[26]*	Report lbs./day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	2/Month[(2)] *[02/30]*	Composite *[24]*
TSS % Removal[(3)] *[81011]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Settleable Solids *[00545]*	---	---	---	---	---	0.3 mL/L *[25]*	5/Week *[05/07]*	Grab *[GR]*
Fecal Coliform Bacteria[(4)] *[31616] (May 15 – Sept. 30)*	---	---	---	15 col/100 mL[(5)] *[13]*	---	50 col/100 mL *[13]*	1/Week *[01/07]*	Grab *[GR]*
Total Residual Chlorine[(6)] *[50060]*	---	---	---	0.1 mg/L *[19]*	---	0.23 mg/L *[19]*	1/Day *[01/01]*	Grab *[GR]*
pH (Std. Units) *[00400]*	---	---	---	---	---	6.0-9.0 *[12]*	5/Week *[05/07]*	Grab *[GR]*
Mercury[(7)] *[50286]*	---	---	---	18.63 ng/L *[28]*	---	27.95 ng/L *[28]*	1/Year *[01/90]*	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).

Footnotes: **See Pages 8-10 of this permit for applicable footnotes.**

SPECIAL CONDITIONS

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

2. The permittee is authorized to discharge secondary treated sanitary wastewater from **Outfall #001** to Peabbles Cove in Cape Elizabeth. Such discharges are limited and must be monitored by the permittee as specified below [(1)].

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

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity[(8)] Acute – No Observed Effect Level (NOEL) *Americamysis bahia* (Mysid Shrimp) *[TDM3E]*	---	---	---	Report % *[23]*	1/2 Year *[01/2YR]*	Composite *[24]*
Chronic – NOEL *Arbacia punctulata* (Sea urchin) *[TBH3A]*	---	---	---	Report % *[23]*	1/2 Year *[01/2YR]*	Composite *[24]*
Analytical chemistry[(9)] *[51447]*	---	---	---	Report µg/L *[28]*	1/2 Year *[01/2YR]*	Composite/Grab *[24]*

Footnotes: **See Pages 8-10 of this permit for applicable footnotes.**

SPECIAL CONDITIONS

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

2. The permittee is authorized to discharge secondary treated sanitary wastewater from **Outfall #001** to Peabbles Cove in Cape Elizabeth. Such discharges are limited and must be 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[(7)] Acute – NOEL *Americamysis bahia* (Mysid Shrimp) *[TDM3E]*	---	---	---	Report % *[23]*	2/Year *[02/YR]*	Composite *[24]*
Chronic – NOEL *Arbacia punctulata* (Sea urchin) *[TBH3A]*	---	---	---	Report % *[23]*	2/Year *[02/YR]*	Composite *[24]*
Analytical chemistry [(8)] *[51477]*	---	---	---	Report µg/L *[28]*	1/Quarter *[01/90]*	Composite/Grab *[24]*
Priority Pollutant [(8)] *[50008]*	---	---	---	Report µg/L *[28]*	1/Year *[01/YR]*	Composite/Grab *[24]*

Footnotes: **See Pages 8-10 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.

   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 sampled after screening and grit removal;

   Secondary effluent sampling – For flow, biochemical oxygen demand, total suspended solids, settleable solids and pH, samples must be collected from the effluent wet well. Fecal coliform and total residual chlorine samples must be collected at the dechlorination structure at Peabbles Cove. Any change in sampling location(s) must be reviewed and approved by the Department in writing.

2. **Twice/Month sampling requirement** – There must be at least 10-14 days between sampling events when required to sample 2/Month.

3. **Percent Removal** – For secondary treated wastewater, the facility must maintain a minimum of 85 percent removal of both BOD_5 and TSS. Percent removal will be based on a monthly average value calculated based on influent and effluent concentrations.

4. **Fecal coliform bacteria** - Limits and monitoring requirements are seasonal and apply from May 15th to September 30th of each year. The Department reserves the right to impose year-round limitations and monitoring requirements to protect the health and welfare of the public.

SPECIAL CONDITIONS

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

Footnotes

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

6. **Total Residual Chlorine (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 United States Environmental Protection Agency (USEPA) "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 A** of this permit for mercury test results. Compliance with the monthly average limitation established in Special Condition A of this permit will be based on the cumulative arithmetic mean of all mercury tests results that were conducted utilizing sampling Method 1669 and analysis Method 1631E on file with the Department for this facility.

8. **WET Testing** – Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions set at levels to bracket the modified acute and chronic critical water quality thresholds of 5.7% and 1.3%, 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 17.4:1 and 74.8:1, 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 exceedances of the critical acute and chronic water quality thresholds of 5.7% and 1.3%, respectively.

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SPECIAL CONDITIONS

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

Footnotes

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

a. U.S. Environmental Protection Agency. 2002. *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine 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 B** 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 C** 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 C** of this permit.

Analytical chemistry and priority pollutant test results must be submitted to the Department not later than the next DMR required by the permit, provided, however, that the permittee may review the laboratory reports for up to 10 business days of their availability before submitting them. The permittee must evaluate test results being submitted and identify to the Department, possible exceedences of the acute, chronic or human health ambient water quality criteria (AWQC) as established in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584 (effective July 29, 2012).

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

SPECIAL CONDITIONS

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.

C. TREATMENT PLANT OPERATOR

The person who has management responsibility over the treatment facility must hold a Maine **Grade II**, 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 IWS any time a new industrial user proposes to discharge within its jurisdiction; an existing user proposes to make a significant change in its discharge; or at an alternative minimum, once every permit cycle, and submit the results to the Department. The IWS must identify, in terms of character and volume of pollutants, any Significant Industrial Users discharging into the POTW subject to Pretreatment Standards under section 307(b) of the federal Clean Water Act, 40 CFR Part 403 (general pretreatment regulations) or *Pretreatment Program*, 06-096 CMR 528 (last amended March 17, 2008).

SPECIAL CONDITIONS

E. NOTIFICATION REQUIREMENT

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

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

2. Any substantial change (increase or decrease) in the volume or character of pollutants being introduced into the wastewater collection and treatment system by a source introducing pollutants into the system at the time of permit issuance.

3. For the purposes of this section, adequate notice must include information on:

   (a) The quality and quantity of wastewater introduced to the wastewater collection and treatment system; and

   (b) Any anticipated impact of the change in the quantity or quality of the wastewater to be discharged from the treatment system.

F. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing on June 21, 2016; 2) the terms and conditions of this permit; and 3) only from Outfall #001A. 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.

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SPECIAL CONDITIONS

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

By December 31 of each calendar year, the permittee must provide the Department with a certification describing any of the following that have occurred since the effective date of this permit ***[ICIS Code 75305]***. See **Attachment C** of the Fact Sheet for an acceptable certification form to satisfy this Special Condition.

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

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

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

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

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

(e) Increases in the type or volume of transported (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.

H. WET WEATHER MANAGEMENT PLAN

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

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

SPECIAL CONDITIONS

H. WET WEATHER MANAGEMENT PLAN (cont'd)

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

I. OPERATION & MAINTENANCE (O&M) PLAN

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

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

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

J. MONITORING AND REPORTING

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

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

SPECIAL CONDITIONS

J. MONITORING AND REPORTING (cont'd)

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.

K. 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.

L. 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.

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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

MERCURY REPORT - Clean Test Only

Data Date Range: 24/Jun/2001 - 24/Jun/2016

Facility: CAPE ELIZABETH **Permit Number:** ME0102121

Max (ng/l): 30.0000 **Average (ng/l):** 6.5847

Sample Date	Result (ng/l)	Lsthan	Clean
03/24/2009	5.20	N	T
06/18/2009	1.30	N	T
09/25/2009	4.90	N	T
12/08/2009	1.90	N	T
03/09/2010	3.90	N	T
06/08/2010	3.30	N	T
09/23/2010	2.50	N	T
12/15/2010	3.53	N	T
03/21/2011	3.70	N	T
06/14/2011	20.40	N	T
07/05/2011	3.40	N	T
09/23/2011	1.20	N	T
12/12/2011	4.70	N	T
03/09/2012	30.00	N	T
03/23/2012	3.10	N	T
04/12/2012	25.90	N	T
03/27/2013	2.11	N	T
05/07/2014	2.70	N	T
06/22/2015	1.37	N	T

Maine Department of Environmental Protection

Effluent Mercury Test Report

Name of Facility: _____ Federal Permit # ME _____

Purpose of this test:
- ☐ Initial limit determination
- ☐ Compliance monitoring for: year _____ calendar quarter _____
- ☐ Supplemental or extra test

SAMPLE COLLECTION INFORMATION

Sampling Date: ___ ___ _____ (mm dd yy) Sampling time: _____ AM/PM

Sampling Location:

Weather Conditions: _____

Please describe any unusual conditions with the influent or at the facility during or preceding the time of sample collection:

Optional test - not required but recommended where possible to allow for the most meaningful evaluation of mercury results:

Suspended Solids _____ mg/L Sample type: _____ Grab (recommended) or _____ Composite

ANALYTICAL RESULT FOR EFFLUENT MERCURY

Name of Laboratory: _____

Date of analysis: _____ **Result:** _____ **ng/L (PPT)**

Please Enter Effluent Limits for your facility

Effluent Limits: **Average =** _____ ng/L **Maximum =** _____ ng/L

Please attach any remarks or comments from the laboratory that may have a bearing on the results or their interpretation. If duplicate samples were taken at the same time please report the average.

CERTIFICATION

I certifiy that to the best of my knowledge the foregoing information is correct and representative of conditions at the time of sample collection. The sample for mercury was collected and analyzed using EPA Methods 1669 (clean sampling) and 1631 (trace level analysis) in accordance with instructions from the DEP.

By: _____ Date: _____

Title: _____

PLEASE MAIL THIS FORM TO YOUR ASSIGNED INSPECTOR

ATTACHMENT B

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 C

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

	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									

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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									

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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:

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
WASTE DISCHARGE LICENSE

PROPOSED DRAFT FACT SHEET

Date: **October 19, 2016**

MEPDES PERMIT: **ME0102121**
WASTE DISCHARGE LICENSE: **W006751-6C-J-R**

NAME AND ADDRESS OF APPLICANT:

PORTLAND WATER DISTRICT
225 DOUGLAS STREET, P.O. BOX 3553
PORTLAND, MAINE 04104

COUNTY: **CUMBERLAND**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

488 SPURWINK AVENUE
CAPE ELIZABETH, MAINE 04107

RECEIVING WATER / CLASSIFICATION: **PEABBLES COVE/CLASS SB**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER:

MR. SCOTT FIRMIN, PE
DIRECTOR OF WASTEWATER SERVICES
PORTLAND WATER DISTRICT
(207) 774-5961 ext. 3077
sfirmin@pwd.org

1. APPLICATION SUMMARY

a. On June 21, 2016, the Department of Environmental Protection (Department) accepted as complete for processing an application from the Portland Water District (PWD/Permittee) for renewal of combination Waste Discharge License (WDL) # W006751-6C-H-R / Maine Pollutant Discharge Elimination System (MEPDES) permit # ME0102121, which was issued by the Department on December 5, 2011 for a five-year term. The 12/5/11 permit authorized the monthly average discharge of an unspecified quantity of secondary treated wastewater from a publicly owned treatment works (POTW) to Peabbles Cove, Class SB, in Cape Elizabeth, Maine.

2. PERMIT SUMMARY

a. Terms and conditions

This permitting action is different from the December 5, 2011 permit in that it:

1. Eliminates the waiver for percent removal requirements for biochemical oxygen demand (BOD_5) and total suspended solids (TSS) when influent strength is less than 200 milligrams per liter (mg/L);

2. Eliminates stipulations associated with Special Conditions K. *Asset Management Program* (AMP) and L. *Repair and Replacement Reserve Account* from the previous permit, as the terms of those conditions have been fulfilled;

3. Reduces the monitoring and reporting requirement for BOD_5 and TSS from 1/Week to 2/Month;

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. Amends the WET surveillance monitoring period to years 1, 2, 3, and 5 of the term of the permit; and

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

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

September 3, 1986 – The Department issued WDL #W006751-46-A-N for a five-year term. This was the original WDL for the newly constructed waste water treatment facility.

September 19, 1995 – The U.S. Environmental Protection Agency (USEPA) issued National Pollutant Discharge Elimination System (NPDES) permit #ME0102121 for a five-year term.

2. PERMIT SUMMARY (cont'd)

May 28, 1996 – The Department issued WDL renewal #W006751-59-B-R for a five-year term.

May 23, 2000 – The Department administratively modified WDL #W006751-59-B-R by establishing interim average and maximum concentration limits for mercury.

January 12, 2001 – The State of Maine received authorization from the USEPA to administer the NPDES permitting program. From that date forward, the permitting program has been referred to as the MEPDES permit program and permit #ME0102121 (same as the NPDES permit number) has been used as the primary reference number for the PWD facility.

December 17, 2001 – The Department issued combination MEPDES permit #ME0101212/WDL #W006751-5L-C-R for a five-year term.

July 5, 2006 – The Department issued combination MEPDES permit #ME0102121/WDL #W006751-5L-D-R for a five-year term.

December 10, 2008 – The Department modified MEPDES permit #ME0102121/WDL #W006751-5L-D-R to acknowledge the existence of an unpermitted bypass pumping system at a major pump station operated by the permittee; established a schedule of compliance for the completion of the Phase I upgrade project to eliminate/mitigate the pump station bypass operation; increased the BOD5 and TSS monthly average and weekly average mass limitations based on the permittee's original dry weather design flow of 0.52 MGD; modified the existing monthly average flow limitation of 0.499 MGD to "Report" only, given the extended wet weather flow events; modified the daily maximum mass limits for BOD5 and TSS to "Report" only; modified the expiration date from July 5, 2011 to September 30, 2011, which is the completion date for the Phase I upgrade project. The modification was assigned WDL #W006751-5L-E-M.

January 12, 2010 – The Department modified Special Condition O, *Schedule of Compliance*, in MEPDES permit #ME0102121/WDL W006751-5L-D-R. The modification eliminated references to past due schedule items and modified the date by which to commence construction of the permittee's Phase I upgrade from April 30, 2010 to September 30, 2010. The modification was assigned WDL #W006751-6C-F-M.

December 22, 2010 – The Department modified MEPDES permit #ME0102121/WDL W006751-5L-D-R by establishing special conditions for the permittee to establish and implement an Asset Management Program and a Repair and Replacement Reserve Account. The modification was assigned WDL # W006751-6C-G-M.

2. PERMIT SUMMARY (cont'd)

July 5, 2011 – The permittee submitted a timely application for renewal of MEPDES permit #ME0102121/WDL W006751-5L-D-R subsequently modified on December 10, 2008, December 8, 2010 and December 22, 2010. The application was accepted as complete on July 7, 2011 and assigned WDL # W006751-6C-H-R.

December 5, 2011 – The Department issued combination MEPDES permit #ME0102121/ WDL #W006751-6C-H-R for a five-year term.

June 17, 2016 – The permittee submitted a timely and complete General Application to the Department for renewal of the December 5, 2011 permit (including subsequent minor permit revisions and permit modifications). The application was accepted for processing on June 21, 2016 and was assigned WDL #W006751-6C-J-R / MEPDES #ME0102121.

c. Source Description: The permittee treats domestic and commercial sanitary wastewater from approximately 3,100 customers in the Town of Cape Elizabeth, Maine. There are no significant industrial contributors or industries with industrial pretreatment requirements connected to the collection system. The collection system is approximately 7.67 miles long, has 13 pump stations, is 100% separated and has no combined sewer overflow points. The permittee supplied the following description of recent upgrades to the system in the application as follows:

> "During the past permit cycle, the facility experienced a major upgrade that increased the instantaneous plant capacity to 2.75 mgd to allow this flow to receive secondary treatment and disinfection. This eliminated an original bypass pump station that diverted flow during peak wet weather events. The influent pump station, influent screen, process piping, disinfection system, plant control system, RAS pumps, emergency power, and effluent pumps were included in the plant upgrade. The upgrade did not affect the rated daily capacity of 0.52 mgd. The control system upgrade has significantly improved operation of the facility."

The applicant also noted that at the time of applying for permit renewal, the replacement of approximately 2,000 feet of the force main from the Peabbles Cove Pump Station had begun.

The permittee is not permitted to accept transported wastes.

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

2. PERMIT SUMMARY (cont'd)

d. Wastewater Treatment: The permittee provides a secondary level of treatment via a bar screen, grit removal, two oxidation ditches (each with a volume of 200,000 gallons) with mechanical aeration, two secondary clarifiers (each 50 feet in diameter and 11 feet deep), a disinfection system utilizing sodium hypochlorite and a dechlorination system utilizing sodium bisulfite. Disinfection is accomplished by injecting sodium hypochlorite into the effluent force main and the 2.5-mile long piping is utilized for chlorine contact purposes.

The outfall pipe is a ductile iron pipe measuring 18 inches in diameter fitted with a 90º elbow that necks the pipe down to 12 inches in diameter. The permittee's facility discharges via a 12" diameter pipe that extends out into the receiving water such that there is approximately 4 feet of water over the top of the pipe at mean low water and 13 feet of water over the top of the pipe at mean high water.

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(1) classifies the estuarine and marine waters lying within the boundaries of Cumberland County and that are not otherwise classified as Class SB waters. *Standards for classification of estuarine and marine waters,* 38 M.R.S. § 465-B(2) describes the standards for Class SB waters.

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5. RECEIVING WATER QUALITY CONDITIONS

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

Cape Elizabeth (as it refers to the Portland Water District wastewater facility) is listed as Category 4-A: Rivers and Streams with Impaired Use. Total Maximum Daily Load (TMDL) Completed (Waterbody ID 804-7). The cause of the impaired use in bacteria from combined sewer overflows (formerly Category 5-B-2). The statewide Maine Bacteria TMDL was approved by the USEPA in 2009 with the goal for attainment in the affected waterbody as sewer separation.

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

The Maine Department of Marine Resources (MEDMR) Pollution Area #13 (See **Attachment D** of this Fact Sheet) *Western Casco Bay and Islands (Cape Elizabeth to Falmouth)* lists the area where the discharge is located as prohibited to the harvesting of shellfish. The MEDMR closes or restricts areas based on ambient water quality data that indicate the area did not meet or marginally met the standards in the National Shellfish Sanitation Program. In addition, MEDMR closes areas by default in the vicinity of outfall pipes associated with treated sanitary wastewater discharges in the event of a failure of the disinfection system.

The Department has no information that the discharge from the permittee, as conditioned, causes or contributes to non-attainment of applicable Class SB water quality standards.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

a. Flow: The previously established reporting condition for monthly average and daily maximum discharge flow (in million gallons per day, or MGD) is being carried forward in this permitting action.

The Department reviewed 50 Discharge Monitoring Reports (DMRs) that were submitted for the period of January 1, 2012 through March 1, 2016. A review of data indicates the following:

Flow

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly Average	Report	0.15 – 0.62	0.3
Daily Maximum	Report	0.19 – 1.90	0.5

6. EFFLUENT LIMITATIONS & 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). Dilution factors for the facility are as follows.

Using plan and profile information previously submitted to the Department by the permittee and the CORMIX model, the Department has determined the dilution factors for the discharge of 0.52 MGD from the wastewater treatment facility are as follows:

Acute = 17.4:1 Chronic = 74.8:1 Harmonic mean = 224:1

The harmonic mean dilution factor is approximated by multiplying the chronic dilution factor by three (3). This multiplying factor is based on guidelines for estimation of human health dilution presented in the USEPA publication, *"Technical Support Document for Water Quality-Based Toxics Control"* (Office of Water; EPA/505/2-90-001, page 88).

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 mg/L and 45 mg/L, respectively, which were based on secondary treatment requirements pursuant to 40 CFR 133.102 and 06-096 CMR 525(3)(III). Previous permitting action also established, and this permitting action is carrying forward, daily maximum BOD_5 and TSS concentration limits of 50 mg/L based on a Department best professional judgement (BPJ) of BPT for secondary treated wastewater. All three concentration limitations are being carried forward in this permitting action.

The previous permitting action established monthly average and weekly average mass limits based on a monthly average limit of 0.52 MGD (original dry weather design flow), which are being carried forward in this permitting action. No daily maximum mass limitations (report only) for BOD_5 or TSS were established in previous permitting action as doing so may discourage PWD from treating as much wastewater as possible during wet weather events.

Mass limitations were derived as follows:

Monthly Average	(30 mg/L)(8.34 lbs./gallon)(0.52 MGD) =	130 lbs./day
Weekly Average	(45 mg/L)(8.34 lbs./gallon)(0.52 MGD) =	195 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).

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

A summary of BOD_5 data as reported on the DMRs submitted to the Department for the period of January 1, 2012 – March 1, 2016 is as follows:

BOD_5 Mass

Value	Limit (lbs./day)	Range (lbs./day)	Average (lbs./day)
Monthly Average	130	12 – 67	27
Weekly Average	195	16 – 109	42
Daily Maximum	Report	17 – 120	50

BOD_5 Concentration

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	4.7 - 22	13
Weekly Average	45	8.5 - 42	20
Daily Maximum	50	10 - 56	23

A summary of TSS data as reported on the DMRs (n = 50) submitted to the Department for the period of January 1, 2012 – March 1, 2016 is as follows:

TSS Mass

Value	Limit (lbs./day)	Range (lbs./day)	Average (lbs./day)
Monthly Average	130	4.5 – 37	14
Weekly Average	195	6 – 66	24
Daily Maximum	Report	8 – 161	35

TSS Concentration

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	1.9 – 16	7
Weekly Average	45	3.2 – 32	12
Daily Maximum	50	3.4 – 96	16

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

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 50 months of data (January 1, 2012 – March 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 21% for BOD_5 and 11% for TSS. According to Table I of the USEPA Guidance and Department Guidance, the monitoring requirement can be reduced to 1/per 2 months 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 1/Week to 2/Month.

d. Settleable Solids: Previous permitting action established a daily maximum concentration limit of 0.3 milliliters per liter (mL/L) for settleable solids and is considered by the Department as a BPJ of BPT for secondary treated wastewater. A review of the DMR data for the period of January 1, 2012 through March 1, 2016 (n = 50) 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 the permittee received a reduction in testing in the previous renewal.

e. Fecal Coliform Bacteria: The previous permitting action established, and this permitting action is carrying forward, monthly average and daily maximum concentration limits of 15 colonies/100 ml and 50 colonies/100 ml, respectively, for fecal coliform bacteria, which are consistent with the National Shellfish Sanitation Program.

A summary of effluent fecal coliform bacteria data as reported on the DMRs for the period May 2012 through September 2015 (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	2 – 13	4
Daily Maximum	50	2 – >600	60

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

Fecal coliform counts were reported as >600 colonies/100ml in July 2012 and July 2015. It is noted that the July 2015 fecal coliform result was due to a failure in a force main and not a malfunction of facility treatment. In response to this failure, in June of this year, the permittee replaced approximately 2,000 linear feet of said force main.

This permitting action is carrying forward the minimum monitoring frequency requirement for fecal coliform bacteria of once per week (1/week).

f. Total Residual Chlorine (TRC): The previous permitting action established a daily maximum water quality-based concentration limit of 0.23 mg/L and a best practicable treatment (BPT) monthly average concentration of 0.1 mg/L as well as a minimum monitoring frequency requirement of once per day at all times during the year. This permitting action is carrying forward the monitoring frequency of 1/Day. The Department specifies TRC limitations in order to ensure that ambient water quality standards are maintained and that BPT technology is being applied to the discharge. The Department imposes the more stringent of either water quality-based or BPT-based limits. End-of-pipe acute and chronic water quality-based concentration thresholds may be calculated as follows:

Criteria		Dilution Factors	Calculated Threshold
Acute	0.013 mg/L	17.4:1	0.23 mg/L
Chronic	0.0075 mg/L	74.8:1	0.56 mg/L

The Department has established a daily maximum BPT limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine-based compounds. For facilities that need to dechlorinate the discharge in order to meet water quality-based thresholds, the Department has established daily maximum and monthly average BPT limits of 0.3 mg/L and 0.1 mg/L, respectively. PWD dechlorinates their effluent prior to discharge in order to achieve compliance with the water quality-based thresholds. The calculated acute water quality-based threshold of 0.23 mg/L is more stringent than the daily maximum technology-based standard of 0.3 mg/L and is therefore being carried forward in this permit. The monthly average technology-based standard of 0.1 mg/L is more stringent than the calculated chronic water quality-based threshold of 0.56 mg/L and is therefore being carried forward in this permitting action.

A summary of TRC data as reported on the monthly DMRs (n = 24) for the period of January 31, 2012 – March 1, 2016 is as follows:

TRC

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	0.1	0.00 – 0.05	0
Daily Maximum	0.23	0.05 – 0.40	0.1

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

g. pH: The previous permitting action established a technology based pH range limitation of 6.0 – 9.0 standard units pursuant to 06-096 CMR 525(3)(III)(c) along with a monitoring frequency of 5/Week, both of which are being carried forward in this permit. A review of the DMR data for the period of January 1, 2012 – March 1, 2016 (n = 50) indicates the pH range was 6.3 – 7.7 standard units. This permitting action is maintaining the current monitoring frequency of 5/Week as the permittee received a reduction in testing in the previous renewal.

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 C of the permit. Analytical chemistry refers to those pollutants listed under "Analytical Chemistry" on the form included as Attachment C of the permit.

06-096 CMR 530(2)(A) specifies the dischargers subject to the rule as:

> All licensed dischargers of industrial process wastewater or domestic wastes discharging to surface waters of the State must meet the testing requirements of this section. Dischargers of other types of wastewater are subject to this subsection when and if the Department determines that toxicity of effluents may have reasonable potential to cause or contribute to exceedences of narrative or numerical water quality criteria.

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

PWD 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 II discharger as the chronic dilution of the receiving water is 74.8:1. 06-096 CMR 530(2)(D) specifies routine WET, priority pollutant, and analytical chemistry test schedules for Level II dischargers as follows:

Surveillance level testing

Level	WET Testing	Priority pollutant testing	Analytical chemistry
II	1 per year	Not Required	2 per year

Screening level testing

Level	WET Testing	Priority pollutant testing	Analytical chemistry
II	2 per year	1 per year	4 per year

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

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

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

On June 24, 2016, the Department conducted a statistical evaluation on the most recent 60 months of WET test results on file with the Department for PWD in accordance with the statistical approach outlined above. The 6/24/16 statistical evaluation indicates the discharge from PWD did not exceed or demonstrate a reasonable potential to exceed the critical acute or chronic ambient water quality thresholds for the mysid shrimp or sea urchin. See **Attachment E** of this Fact Sheet for a summary of the WET test results.

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

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

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6. EFFLUENT LIMITATIONS & 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 exceedence of water quality criteria, appropriate water quality-based limits must be established in any licensing action."

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

On June 24, 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 carrying forward the reduced surveillance level analytical chemistry testing requirements for this facility.

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

j. Mercury: Pursuant to 38 M.R.S. § 420 and 38 M.R.S. § 413 and 06-096 CMR 519, the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying WDL #W006751-59-B-R by establishing interim monthly average and daily maximum effluent concentration limits of 6.5 parts per trillion (ppt) and 9.8 ppt, respectively, and a minimum monitoring frequency requirement of 4 tests per year for mercury.

On February 6, 2012, the Department issued a minor revision to the August 8, 2011 permit thereby revising the monthly average and daily maximum effluent concentrations limits to 18.63 ppt and 27.95 ppt, respectively as well as amending the minimum monitoring frequency requirement from four times per year to once per year pursuant to 38 M.R.S. § 420(1-B)(F). These limits and the minimum monitoring frequency are being carried forward in this permitting action.

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 June 2015 is as follows (ppt equals nanograms per liter (ng/L):

Mercury (n = 19)

Value	Limit (ng/L)	Range (ng/L)	Mean (ng/L)
Monthly Average	18.63	1.2 - 30	6.6
Daily Maximum	27.95		

One sample taken on March 9, 2012, was above the daily maximum limit of 27.95 ng/L.

k. Nitrogen: The USEPA requested the Department evaluate the reasonable potential for the discharge of total nitrogen to cause or contribute to non-attainment of applicable water quality standards in marine waters, namely dissolved oxygen (DO) and marine life support. To date, the permittee has not conducted total nitrogen testing on its discharge. The Department has 140 total nitrogen effluent values with an arithmetic mean of 17.2 mg/L collected from various municipally-owned treatment works that discharge to marine waters of the State. None of the facilities whose effluent data were used are specifically designed to remove total nitrogen. For the MEPDES permitting program, the Department considers 17.2 mg/L to be representative of total nitrogen discharge levels for all facilities providing secondary treatment that discharge to marine waters in the absence of facility specific data, and therefore 17.2 mg/L is being used as the total nitrogen discharge concentration from the Cape Elizabeth POTW.

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

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

Four known surveys have been completed along the Cape Elizabeth shoreline to document presence/absence of eelgrass. The first survey occurred in the 1970's by Timson of the Maine Geological Survey, the second (1993) and third (2001) by MEDMR, and the fourth in 2013 by the Department. The Timson survey delineated coarse-grained intertidal and subtidal flats and bedrock ledge along the Cape Elizabeth shoreline, and did not note the presence of eelgrass. In the 1993, 2001 and 2013 surveys, only isolated small patches less than one acre in area were noted in Peabbles Cove and adjacent coves to the north of the Cape Elizabeth discharge. Mapped eelgrass was of intermediate percent cover and relatively consistent in extent between surveys. Based on this mapping history of minimal eelgrass resource in the vicinity of the outfall as well as the rocky, steeply sloping coastline presenting otherwise poor habitat for eelgrass, the use of 0.45 mg/L as a threshold value for dissolved oxygen as the indicator is appropriate for this receiving water.

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 74.8:1. 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 12" diameter pipe that extends out into the receiving water such that there is approximately 4 feet of water over the top of the pipe at mean low water and 13 feet of water over the top of the pipe at mean high water.

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

A dilution model was created by the Department's Division of Environmental Assessment (DEA). The following is an excerpt of the rationale supporting the dilution:

> "The model encompasses four, open coves – Spring Cove (62 acres), Alewife Brook Cove (33 acres), Peabbles Cove (25 acres), and Trundy Cove (37 acres) – along a 1.4 kilometer section of the Cape Elizabeth shoreline from Zeb Cove Point to Trundy Point. In addition to the tidal exchange, the model includes a near-shore, tidal current that passes through a 400-meter breach in Trundy Reef. This current transports the diluted discharge plume up the coastline and back down the coastline each tide cycle. As expected, the minimum dilution occurs in Peabbles Cove (the location of the outfall) and is assessed to be 850:1. Dilutions in the other coves are around twice this value."

Using this far-field dilution factor, the increase in total nitrogen concentration within Peabbles Cove as a result of the discharge is estimated to be 0.02 mg/L.

Total nitrogen concentrations in effluent = 17.2 mg/L
Far-field dilution factor = 850:1

In-stream concentration after dilution: $\frac{17.2 \text{ mg/L}}{850} = 0.02$ mg/L

The Department and external partners have been collecting ambient total nitrogen data along Maine's coast. However, no total nitrogen data are known to exist from the coves listed above, and few data points exist along the exposed rocky coastline of Southern Maine where stormwater influence is inconsequential and other nearby point sources are absent. As a result, the Department has selected seven relevant sites from Southern Maine whose data from August and September 2004, 2006, and 2009-2011 best represent the ambient conditions likely to occur in shallow, nearshore water along the Cape Elizabeth shoreline. From these sites, the Department has calculated a mean background concentration of 0.18 ± 0.05 mg/L (n=14). Accompanying these total nitrogen values are dissolved oxygen profiles and transparency and surface chlorophyll *a* data, none of which indicate water quality degradation typical of eutrophication. More specifically, dissolved oxygen concentrations ranged from 7.7-10 mg/L, transparency values ranged from 3.5-6 m depth, and all chlorophyll *a* values were less than 4.2 µg/L.

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

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 0.18 mg/L + 0.02 mg/L = 0.2 mg/L. The in-stream concentration value of 0.2 mg/L is less than the Department and USEPA's best professional judgment based total nitrogen threshold of 0.45 mg/L for the protection of aquatic life using dissolved oxygen as an indicator. Using the reasonable potential calculations above and in the absence of any information that the receiving water is not attaining standards, the Department is making a best professional judgment determination that the discharge of total nitrogen from the Cape Elizabeth POTW does not exhibit a reasonable potential to exceed applicable water quality standards for Class SB waters. This permitting action is not establishing limitations or monitoring requirements for total nitrogen.

7. 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 SB classification.

8. PUBLIC COMMENTS

Public notice of this application was made in the *Portland Press Herald* newspapers on or about June 15, 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).

9. DEPARTMENT CONTACTS

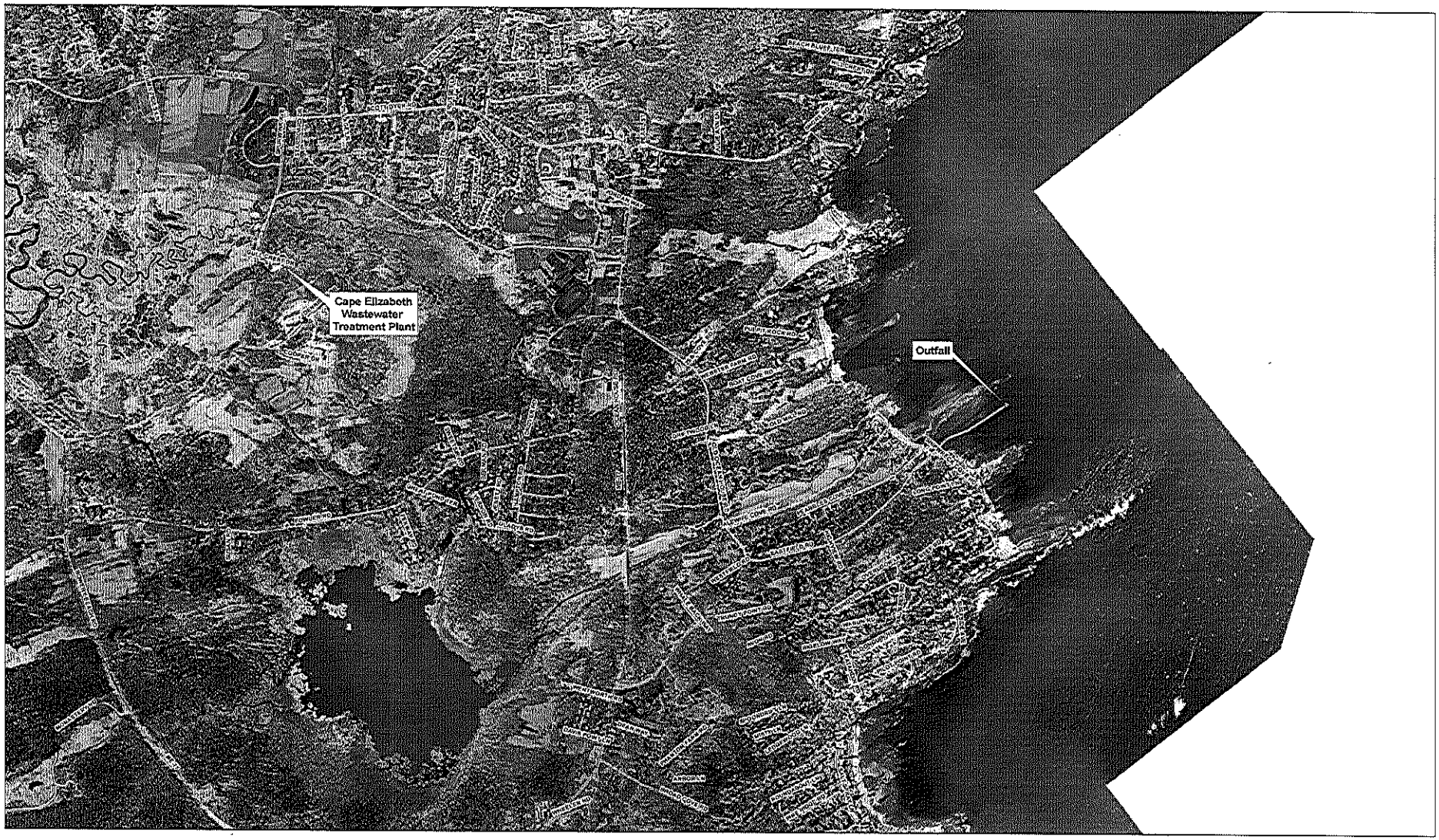
Additional information concerning this permitting action may be obtained from, and written comments sent to:

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

10. RESPONSE TO COMMENTS

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

ATTACHMENT A

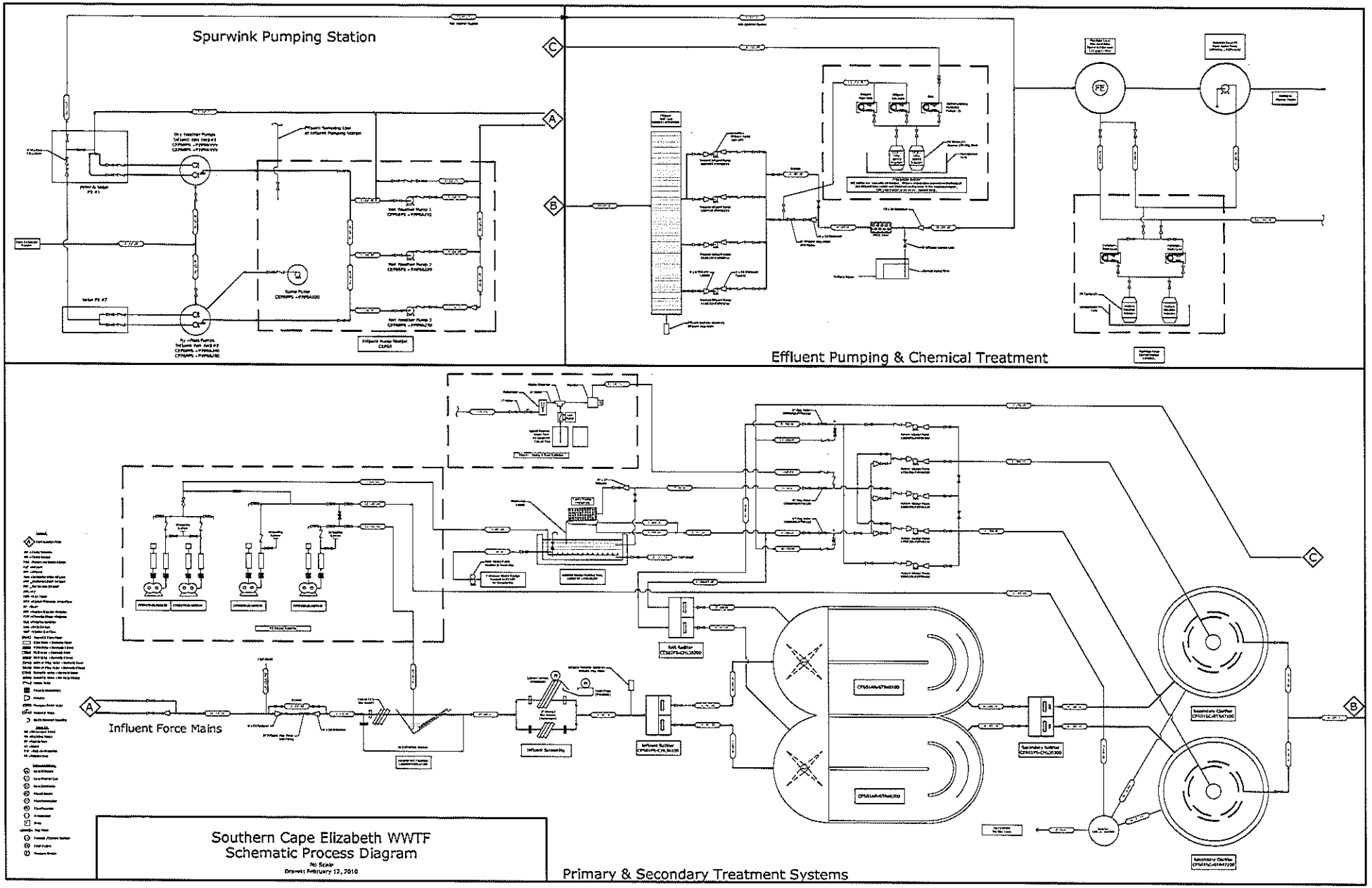


1 inch = 600 feet

0 300 600 1,200 1,800 2,400
Feet

PORTLAND WATER DISTRICT **225 Douglass Street** **Portland, ME 04104**	**Asset Management and Planning Dept.**	**Wastewater Treatment Plant Outfall**		**Aerial View**
	Drawn By: JGH Date: 6/30/2011	Project Completion Date:	**Cape Elizabeth**	**Sheet No. 2 of 2**

ATTACHMENT B


Spurwink Pumping Station
Effluent Pumping & Chemical Treatment
Influent Force Mains
Primary & Secondary Treatment Systems
Southern Cape Elizabeth WWTF
Schematic Process Diagram
No Scale
Drawn: February 12, 2010

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

August 8, 2014

Ladies and Gentlemen:

Under the authority of Maine statute 12 M.R.S.A., Chapter 607, Section 6172; the Commissioner has made the following classification change to Area No. 13, Western Casco Bay and Islands (Cape Elizabeth to Falmouth: This notice reclassifies a portion of the Presumpscot River (Falmouth) from prohibited to restricted for relay due to an updated shoreline survey. All existing pollution and red tide/psp closures remain in effect.

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

1. Western Casco Bay and Islands (Cape Elizabeth to Falmouth), inside and shoreward of a line beginning at the end of Waites Landing Road (Falmouth), then running southwest to the south tip of the most western island of The Brothers, continuing southeast to the south tip of the southeastern most island of The Brothers, continuing northeast to Crow Island (1000' northeast of Chivericks Cove (Long Island), continuing southeast to the navigational aide Red Beacon "P" Mo (A), and then continuing northwest to McKenney Point (Cape Elizabeth); <u>AND south of a line beginning at the shore south of the end of Webber Way, then continuing northwest to the opposite shore approximately 350 yards north of the outlet of an unnamed stream</u>.

2. Hope Island (Chebeague Island): within 500 feet of shore.

3. Cliff Island (Portland): within 500 feet of shore.

4. Bates Island (Chebeague Island): inside and shoreward of a line beginning at the north tip of Bates Island; then running southwest to the south tip of Ministerial Island; then running southeast to the south tip of Bates Island.

5. Clapboard Island (Falmouth): within 300 feet of shore.

6. <u>North of a line beginning at the northeastern point of land on Gilsland Farm then running west to the opposite shore south of Mill Pond.</u>

B. Effective immediately, because of intermittent pollution, the following area is classified as "Conditionally Approved", and shall be closed to the harvest of clams, quahogs, oysters and mussels from May 1 to November 14: the shores, flats and waters within the following boundaries (1) east of a line beginning at a red painted post at the most northern point of land at the mouth of Mussel Cove (Falmouth), then continuing southeast to the tip of Bartlett Point (Falmouth), then continuing southeast to the tip of Prince Point (Falmouth); (2) east of a line beginning at the end of Waites Landing Road (Falmouth), then running southwest to the south tip of the most western island of The Brothers, continuing southeast to the south tip of the southeastern most island of The Brothers; (3) inside and shoreward of a line beginning at the easternmost tip of the southeastern most island of

The Brothers, continuing northeast to the southern tip of Sturdivant Island, then running southwest to the shore at the end of Town Landing Road (Falmouth).

C. Effective immediately it shall be unlawful to dig, take or possess any clams, quahogs, oysters or mussels taken from the shores, flats and waters of Mussel Cove (Falmouth): inside and shoreward of a line beginning at a red painted post at the most northern point of land at the mouth of Mussel Cove (Falmouth), then continuing southeast to the tip of Bartlett Point (Falmouth), then continuing southeast to the tip of Prince Point (Falmouth). This area is classified as "Restricted" and requires a special MDMR permit.

D. Effective immediately it shall be unlawful to dig, take or possess any clams, quahogs, oysters or mussels taken from the shores, flats and waters of the lower Presumpscot River (Falmouth): north of a line beginning at the shore south of the end of Webber Way, then continuing northwest to the opposite shore approximately 350 yards north of the outlet of an unnamed stream; AND south of a line beginning at the northeastern point of land on Gilsland Farm then running west to the opposite shore south of Mill Pond. This area is classified as "Conditionally Restricted for Relay" and shall be closed to the harvest of clams, quahogs, oysters and mussels during any malfunction at the Falmouth Wastewater Treatment Plant. This area is available only for a MDMR permitted project for male specific coliphage (MSC) hybrid container relay/depuration harvest.

If you have questions, please contact Kohl Kanwit, Department of Marine Resources, 194 McKown Point Road, West Boothbay Harbor, Maine 04575-0008, Tel: (207) 633-9535, Email: 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).

Kohl Kanwit
Commissioner's Designee – Director, Bureau of Public Health

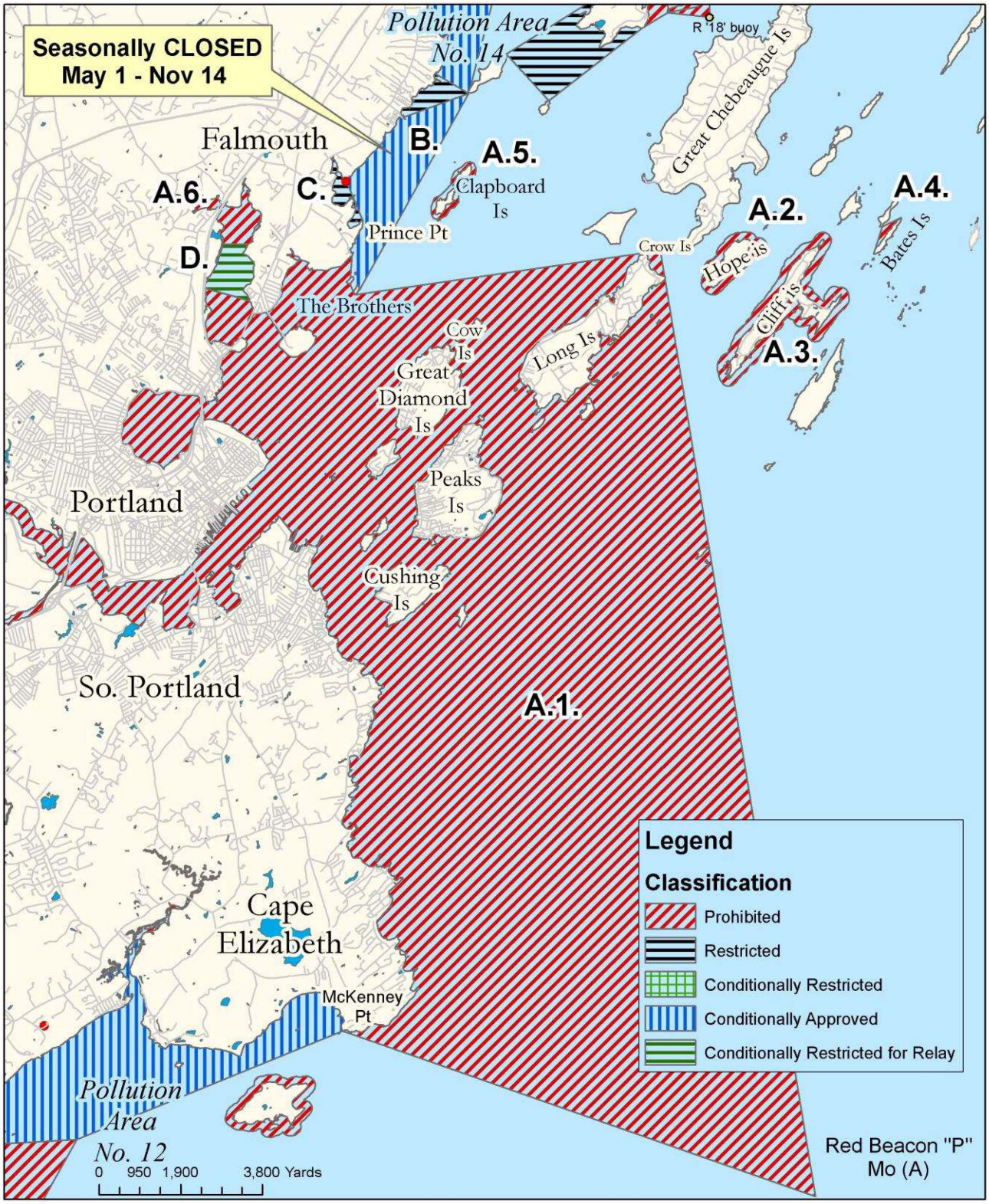
1:25 PM
(*Effective Time*)

Maine Department of Marine Resources

Pollution Area No. 13

Western Casco Bay and Islands (Cape Elizabeth to Falmouth)

August 8, 2014



OFFICES AT 2 BEECH ST., BAKER BUILDING, HALLOWELL, MAINE
http://www.Maine.gov/dmr

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

ATTACHMENT E

WET TEST REPORT

Data for tests conducted for the period

22/Aug/2011 - 22/Aug/2016

CAPE ELIZABETH NPDES= ME0102121 Effluent Limit: Acute (%) = 5.747 Chronic (%) = 1.337

Species	Test	Percent	Sample date	Critical %	Exception	RP
MYSID SHRIMP	A_NOEL	100	03/20/2013	5.747		
MYSID SHRIMP	A_NOEL	100	08/17/2015	5.747		
SEA URCHIN	C_NOEL	50	03/20/2013	1.337		
SEA URCHIN	C_NOEL	50	08/17/2015	1.337		

ATTACHMENT F

FACILITY PRIORITY POLLUTANT DATA REPORT

Data Date Range: 24/Jun/2011 - 24/Jun/2016

Showing only those values not reported as a less than result

Facility name: **CAPE ELIZABETH** Permit Number: **ME0102121**

Parameter:	ALUMINUM	**Test date**	**Result (ug/l)**	**Lsthan**
		07/06/2011	65.000	N
		03/20/2013	28.000	N
		08/17/2015	30.000	N
		01/24/2016	66.000	N
Parameter:	AMMONIA	**Test date**	**Result (ug/l)**	**Lsthan**
		07/06/2011	770.000	N
		03/20/2013	2000.000	N
		08/17/2015	2600.000	N
		01/24/2016	650.000	N
Parameter:	ARSENIC	**Test date**	**Result (ug/l)**	**Lsthan**
		01/24/2016	7.300	N
Parameter:	COPPER	**Test date**	**Result (ug/l)**	**Lsthan**
		07/06/2011	23.000	N
		03/20/2013	26.000	N
		08/17/2015	18.000	N
		01/24/2016	19.000	N
Parameter:	LEAD	**Test date**	**Result (ug/l)**	**Lsthan**
		07/06/2011	3.000	N
		03/20/2013	2.000	N
		08/17/2015	12.000	N
Parameter:	MERCURY	**Test date**	**Result (ug/l)**	**Lsthan**
		07/05/2011	0.003	N
		09/23/2011	0.001	N
		12/12/2011	0.005	N
		03/09/2012	0.030	N
		03/23/2012	0.003	N
		04/12/2012	0.026	N
		03/27/2013	0.002	N
		05/07/2014	0.003	N
		06/22/2015	0.001	N
Parameter:	SALINITY	**Test date**	**Result (ug/l)**	**Lsthan**
		03/20/2013	3.000	N
Parameter:	TOC	**Test date**	**Result (ug/l)**	**Lsthan**
		07/06/2011	9500.000	N
		03/20/2013	6600.000	N
		08/17/2015	10300.000	N
Parameter:	TSS	**Test date**	**Result (ug/l)**	**Lsthan**
		07/06/2011	8200.000	N
		03/20/2013	3300.000	N
		08/17/2015	4000.000	N
Parameter:	ZINC	**Test date**	**Result (ug/l)**	**Lsthan**
		07/06/2011	78.000	N

Facility name: **CAPE ELIZABETH** Permit Number: **ME0102121**

	01/24/2016	110.000	N