STATE OF MAINE
DEPARTMENT OF
ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

MELANIE LOYZIM
ACTING COMMISSIONER

December 1, 2018

Mr. Robert Clark
96 Clearwater Drive
Falmouth, ME. 04105

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0100218
Maine Waste Discharge License (WDL) #W002650-6D-I-R
Final Permit

Dear Mr. Clark:

Enclosed please find a copy of your **final** MEPDES permit and Maine WDL **renewal** which was approved by the Department of Environmental Protection. Please read this permit/license renewal and its attached conditions carefully. Compliance with this permit/license will protect water quality.

Any interested person aggrieved by a Department determination made pursuant to applicable regulations, may appeal the decision following the procedures described in the attached DEP FACT SHEET entitled "*Appealing a Commissioner's Licensing Decision.*"

If you have any questions regarding the matter, please feel free to call me at 287-7693. Your Department compliance inspector copied below is also a resource that can assist you with compliance. Please do not hesitate to contact them with any questions.

Thank you for your efforts to protect and improve the waters of the great state of Maine!

Sincerely,

Gregg Wood
Division of Water Quality Management
Bureau of Water Quality

Enc.

cc: Matt Hight, MDEP/SMRO
Sandy Mojica, USEPA
Ivy Frignoca, Casco Bay Keeper
Lori Mitchell, MDEP/CMRO
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STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

TOWN OF FALMOUTH	)	MAINE POLLUTANT DISCHARGE
PUBLICLY OWNED TREATMENT WORKS	)	ELIMINATION SYSTEM PERMIT
FALMOUTH, CUMBERLAND COUNTY, ME	)	AND
ME0100218	)	WASTE DISCHARGE LICENSE
W002650-6D-I-R **APPROVAL**	)	**RENEWAL**

Pursuant to the provisions of the Federal Water Pollution Control Act, Title 33 USC, Section 1251, et. seq. and Maine Law 38 M.R.S., § 414-A et seq., and applicable regulations, the Department of Environmental Protection (Department hereinafter) has considered the application of the TOWN OF FALMOUTH (Town/permittee hereinafter), with its supportive data, agency review comments, and other related material on file and finds the following facts:

APPLICATION SUMMARY

The Town has submitted a timely and complete application to the Department for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0100218/Maine Waste Discharge License (WDL) #W002650-6D-G-R (permit hereinafter) which was issued by the Department on February 21, 2013, for a five-year term. The 2/21/13 permit authorized the discharge of up to a monthly average flow of 1.56 million gallons per day (MGD) of secondary treated sanitary waste waters from a publicly owned treatment works facility to the Presumpscot River estuary, Class SC, in Falmouth, Maine.

PERMIT SUMMARY

This permitting action is carrying forward all the terms and conditions of the previous permitting actions except that it:

1. Removes a monthly average water quality based mass limitation and concentration reporting requirement for total copper as a recent statistical evaluation indicates none of the most current 60 months of test results exceeds or has a reasonable potential to exceed applicable ambient water quality criteria (AWQC).

2. Incorporates a special condition requiring the permittee to immediately report all discharges of untreated waste water to the Maine Department of Marine Resources (DMR). This information will assist the DMR in determining whether to close conditionally approved shellfish harvesting areas impacted by the discharges.

CONCLUSIONS

Based on the findings in the attached Fact Sheet dated September 21, 2018, 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, 38 M.R.S. §464(4)(F), will be met, in that:

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

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

   c. Where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;

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

   e. Where a discharge will result in lowering the existing quality of any water body, 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 as defined in 38 M.R.S. §414-A(1)(D).

ACTION

THEREFORE, the Department APPROVES the above noted application for the TOWN OF FALMOUTH, to discharge up to a monthly average flow of 1.56 million gallons per day of secondary treated sanitary waste waters to the Presumpscot River estuary, Class SC, subject to the attached conditions and all applicable standards and regulations:

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 authorization to discharge and the terms and conditions of this permit and all modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [*Maine Administrative Procedure Act*, 5 M.R.S. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 CMR 2(21)(A) (last amended June 9, 2018.)]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS 4 DAY OF December, 2018.

COMMISSIONER OF ENVIRONMENTAL PROTECTION

BY: _____
For Melanie Loyzim, Acting Commissioner

Date of initial receipt of application November 14, 2017.

Date of application acceptance November 15, 2017.

Filed
DEC 4 2018
State of Maine
Board of Environmental Protection

Date filed with Board of Environmental Protection _____

This Order prepared by Gregg Wood, Bureau of Water Quality

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge secondary treated wastewaters from **OUTFALL # 001A** to the Presumpscot River Estuary. Such discharges are limited and monitored by the permittee as specified below. The italicized numeric values bracketed in the table below and on the following pages are code numbers that Department personnel utilize to code Discharge Monitoring Reports (DMR's).

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow *[50050]*	1.56 MGD *[03]*	---	Report MGD *[03]*	---	---	---	Continuous *[99/99]*	Recorder *[RC]*
Biochemical Oxygen Demand (BOD_5) *[00310]*	390 lbs/Day *[26]*	585 lbs/Day *[26]*	650 lbs/Day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	1/Week *[01/07]*	24 Hr. Composite *[24]*
BOD5 % Removal (1) *[81010]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Total Suspended Solids (TSS) *[00545]*	390 lbs/Day *[26]*	585 lbs/Day *[26]*	650 lbs/Day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	1/Week *[01/07]*	24 Hr. Composite *[24]*
TSS % Removal (1) *[81011]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Settleable Solids *[00530]*	---	---	---	---	---	0.3 ml/L *[25]*	5/Week *[05/07]*	Grab *[GR]*
Fecal coliform bacteria (2) *[74055] (Year round)*	---	---	---	15 cfu/100 ml(3) *[13]*	---	50 cfu/100 ml(3) *[13]*	1/Week *[01/07]*	Grab *[GR]*
Total Residual Chlorine(4) *[50060]*	---	---	---	0.080 mg/L *[19]*	---	0.10 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 (Total) (5) *[71900]*	---	---	---	22.5 ng/L *[3M]*	---	33.8 ng/L *[3M]*	1/Year *[01/YR]*	Grab *[GR]*

SPECIAL CONDITIONS

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

OUTFALL #001A

Effluent Characteristic	Discharge Limitations			Minimum Monitoring Requirements		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Total Kjeldahl Nitrogen (as N) *[00625]* ***(May – Oct) Calendar years 2019 & 2020***	Report lbs/day *[26]*	Report lbs/day *[26]*	Report mg/L *[19]*	Report mg/L *[19]*	1/Week *[01/07]*	Composite *[24]*
Nitrate + Nitrite Nitrogen (as N) *[00630]* ***(May – Oct) Calendar years 2019 & 2020***	Report lbs/day *[26]*	Report lbs/day *[26]*	Report mg/L *[19]*	Report mg/L *[19]*	1/Week *[01/07]*	Composite *[24]*
Total Nitrogen (as N) (6) *[00600]* ***(May – Oct) Calendar years 2019 & 2020***	Report lbs/day *[26]*	Report lbs/day *[26]*	Report mg/L *[19]*	Report mg/L *[19]*	1/Week *[01/07]*	Composite *[24]*
Total Nitrogen (as N) (7) *[00600]* ***DMR for the month of October***	Report lbs/day *[26]*	---	---	---	1/Season *[01/SN]*	Calculate *[CA]*
Total Kjeldahl Nitrogen (as N) *[00625]* ***(May – Oct) Beginning calendar year 2021***	Report lbs/day *[26]*	Report lbs/day *[26]*	Report mg/L *[19]*	Report mg/L *[19]*	1/Month *[01/30]*	Composite *[24]*
Nitrate + Nitrite Nitrogen (as N) *[00630]* ***(May – Oct) Beginning calendar year 2021***	Report lbs/day *[26]*	Report lbs/day *[26]*	Report mg/L *[19]*	Report mg/L *[19]*	1/Month *[01/30]*	Composite *[24]*
Total Nitrogen (as N) (6) *[00600]* ***(May – Oct) Beginning calendar year 2022***	Report lbs/day *[26]*	Report lbs/day *[26]*	Report mg/L *[19]*	Report mg/L *[19]*	1/Month *[01/30]*	Composite *[24]*
Total Nitrogen (as N) (7) *[00600]* ***DMR for the month of October***	Report lbs/day *[26]*	---	---	---	1/Season *[01/SN]*	Calculate *[CA]*

Footnotes: **See pages 8 through 12 of this permit for applicable footnotes.**

SPECIAL CONDITIONS

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

SURVEILLANCE LEVEL – Beginning upon issuance of this permit and lasting through 24 months prior to permit expiration, and commencing again 12 months prior to permit expiration the permittee shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity[8] **Acute – NOEL** *Americamysis bahia* [TDM3E] (Mysid Shrimp)	---	---	---	Report% [23]	1/Year [01/YR]	Composite [24]
Chronic – NOEL *Arbacia punctulata* [TBH3A] (Sea urchin)	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
Analytical Chemistry[9,11] [51168]	---	---	---	Report ug/L [28]	1/Year [01/YR]	Composite/Grab [24]

Footnotes: **See pages 8 through 12 of this permit for applicable footnotes.**

SPECIAL CONDITIONS

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

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, the permittee shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity Acute – NOEL [8] *Americamysis bahia* [TDM3E] (Mysid Shrimp)	---	---	---	Report % [23]	1/Quarter [01/90]	Composite [24]
Chronic – NOEL *Arbacia punctulata* [TBH3A] (Sea urchin)	---	---	---	Report % [23]	1/Quarter [01/90]	Composite [24]
Analytical Chemistry[9,11] [51168]	---	---	---	Report ug/L [28]	1/Quarter [01/90]	Composite/Grab [24]
Priority Pollutant[10] [50008]	---	---	---	Report ug/L [28]	1/Year [01/YR]	Composite/Grab [24]

Footnotes: **See pages 8 through 12 of this permit for applicable footnotes.**

SPECIAL CONDITIONS

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

Footnotes:

Sampling for all parameters must be collected after the last treatment process prior to discharge to the receiving water. Sampling and analysis must be conducted in accordance with; a) methods approved by 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis must be analyzed by a laboratory certified by the State of Maine's Department of Health and Human Services for waste water. 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). 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, all results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report.

1. **Percent Removal** - The treatment facility must maintain a minimum of 85 percent removal of both total suspended solids and biochemical oxygen demand for all flows receiving secondary treatment. The percent removal must be calculated based on influent and effluent concentration values.

2. **Fecal coliform bacteria** - Limits and monitoring requirements apply year-round as requested by the Maine Department of Marine Resources to protect the integrity of local shellfishing habitats and the health, safety, and welfare of the public.

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

4. **Total residual chlorine (TRC)** – TRC limitations are applicable any time of year in which elemental chlorine or chlorine based compounds are utilized as disinfectants. If no chlorine based compounds are utilized during a month's reporting period, the permittee shall enter the code "N-9" in the applicable space on the corresponding month's DMR. The permittee must utilize approved test methods that are capable of bracketing the limitations in this permit.

SPECIAL CONDITIONS

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

Footnotes (cont.):

5. **Mercury** – All mercury sampling (1/Year) required to determine compliance with interim limitations established pursuant to *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001) shall be conducted in accordance with EPA's "clean sampling techniques" found in EPA Method 1669, Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels. All mercury analyses shall be conducted in accordance with EPA Method 1631E, Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry. See **Attachment A,** *Effluent Mercury Test Report*, of this permit for the Department's form for reporting mercury test results. Compliance with the monthly average limitation established in Special Condition A.1 of this permit will be based on the cumulative arithmetic mean of all mercury tests results that were conducted utilizing sampling Methods 1669 and analysis Method 1631E on file with the Department for this facility.

6. **Total nitrogen (as N) – Monthly** – The permittee is required to report the monthly average, weekly average and daily maximum mass and concentrations for each month (May – October) by adding the total kjeldahl nitrogen values to the nitrate + nitrite nitrogen values.

7. **Total Nitrogen (as N) – Seasonal daily average** - The permittee is required to report the seasonal daily average mass of total nitrogen discharged from the facility on the October DMR for each year. The seasonal daily average mass must be calculated by summing the mass results for each sampling event and dividing by the total number of samples. See Special Condition K of this permit for annual reporting requirements. See **Attachment B** of this permit for the Department's protocol entitled, *Protocol For Nitrogen Sample Collection and Analysis For Waste Water Effluent.*

SPECIAL CONDITIONS

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

8. **Whole Effluent Toxicity (WET)** – Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions bracketing the acute and chronic critical thresholds of 12 % and 9.1% respectively), which provides an estimate of toxicity in terms of No Observed Effect Level, commonly referred to as NOEL or NOEC. A-NOEL is defined as the acute no observed effect level with survival as the end point. C-NOEL is defined as the chronic no observed effect level with survival, reproduction and growth as the end points. Acute tests must be conducted on the mysid shrimp (*Americamysis bahia)* and chronic tests must be conducted on the sea urchin (*Arbacia punctulata*). The critical acute and chronic thresholds were derived as the mathematic inverse of the applicable acute and chronic dilution factors of 8.3:1 and 11:1 respectively.

   a. **Surveillance level testing** – Beginning upon issuance of this permit and lasting through 24 months prior to permit expiration (years 1-3 of the permit), and commencing again 12 months prior to permit expiration (year 5 of the permit), the permittee must conduct surveillance level WET testing at a minimum frequency of (1/Year) for the mysid shrimp and the sea urchin. Testing must be conducted in a different calendar quarter of each year such that a WET test is conducted in each of the four calendar quarters during the first four years of the term of the permit.

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

   WET test results must be submitted to the Department not later than the next Discharge Monitoring Report (DMR) required by the permit, provided, however, that the permittee may review the toxicity reports for up to 10 business days after receiving the results from the laboratory 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 12% and 9.1%, respectively.

SPECIAL CONDITIONS

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

Footnotes (cont.):

Toxicity tests must be conducted by an experienced laboratory approved by the Department. The laboratory must follow procedures as described in the following U.S.E.P.A. methods manuals:

a. Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Water to Marine and Estuarine Organisms, Third Edition, October 2002, EPA-821-R-02-014.

b. Methods for Measuring the Acute Toxicity of Effluent and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, October 2002, EPA-821-R-02-012.

Results of WET tests must be reported on the "Whole Effluent Toxicity Report Marine Waters" form included as **Attachment C** of this permit each time a WET test is performed. The permittee is required to analyze the effluent for the analytical chemistry parameters specified on the "WET and Chemical Specific Data Report Form" form included as **Attachment D** of this permit each time a WET test is performed.

9. **Analytical chemistry** – Refers to a suite of chemicals in **Attachment D** of this permit.

a. **Surveillance level testing** – Beginning upon issuance of this permit and lasting through 24 months prior to permit expiration (years 1-3 of the permit), and commencing again 12 months prior to permit expiration (year 5 of the permit), the permittee must conduct surveillance analytical chemistry testing at a minimum frequency of 1/Year. As with WET testing, testing must be conducted in a different calendar quarter of each year such that an analytical chemistry test is conducted in each of the four calendar quarters during the first four years of the term of the permit.

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

SPECIAL CONDITIONS

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

Footnotes (cont.):

10. **Priority pollutant testing** – Priority pollutants are those parameters listed in **Attachment D** of this permit.

    a. **Surveillance level testing** is not required pursuant to 06-096 CMR 530.

    b. **Screening level testing** - Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration and every five years thereafter, the permittee must conduct screening level priority pollutant testing at a minimum frequency of once per year (1/Year). It is noted Chapter 530 does not require routine surveillance level priority pollutant testing.

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

    Test results must be submitted to the Department not later than the next Discharge Monitoring Report (DMR) required by the permit, provided, however, that the permittee may review the toxicity reports for up to 10 business days of their availability before submitting them. The permittee must evaluate test results being submitted and identify to the Department, possible exceedances of the acute, chronic or human health AWQC as established in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584 (last amended July 29, 2012). For the purposes of DMR reporting, enter a "1" for yes, testing done this monitoring period or "N9" monitoring not required this period.

SPECIAL CONDITIONS

B. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent must not contain 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 effluent must not contain 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 discharge must not impart visible discoloration, taste, turbidity, toxicity, radioactivity or other propoerties in the receiving waters which would impair the uses designated for the classification of the receiving waters.

4. Notwithstanding specific conditions of this permit the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

C. TREATMENT PLANT OPERATOR

The person who has the management responsibility over the treatment facility must hold a **Grade III,** certificate (or higher) or must be a Maine Registered Professional Engineer pursuant to *Sewerage Treatment Operators*, Title 32 M.R.S.A., Sections 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 waste water collection and treatment system by a non-domestic source (user) must not pass through or interfere with the operation of the treatment system. The permittee must conduct an Industrial Waste Survey (IWS) at 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 waste water collection and treatment system from an indirect discharger in a primary industrial category discharging process waste water.

2. Any substantial change in the volume or character of pollutants being introduced into the waste water collection and treatment system.

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

   a. The quality and quantity of waste water introduced to the waste water collection and treatment system; and

   b. Any anticipated impact of the change in the quantity or quality of the waste water 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 November 15, 2017; 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.

G. DISPOSAL OF TRANSPORTED WASTES IN WASTEWATER TREATMENT FACILITY

Pursuant to this permit and *Standards for the Addition of Transported Wastes to Waste Water Treatment Facilities,* 06-096 CMR 555 (last amended February 5, 2009), during the effective period of this permit, the permittee is authorized to receive and introduce into the treatment process or solids handling stream up to **a daily maximum of 8,000 gallons per day** of transported wastes, subject to the following terms and conditions.

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

SPECIAL CONDITIONS

G. DISPOSAL OF TRANSPORTED WASTES IN WASTEWATER TREATMENT FACILITY

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

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

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

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

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

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

SPECIAL CONDITIONS

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

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

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

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

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

H. WET WEATHER FLOW MANAGEMENT PLAN

The permittee must maintain 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. A specific objective of the Wet Weather Management Plan must be to maximize the volume of wastewater receiving secondary treatment under all operating conditions. The Wet Weather Management Plan must include operating procedures for a range of intensities, address solids handling procedures (including septic waste and other high strength wastes if applicable) and provide written operating and maintenance procedures during the events. The Department may require the submission of the Wet Weather Management Plan for review and approval.

The permittee must review the Wet Weather Management 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.

SPECIAL CONDITIONS

I. OPERATION & MAINTENANCE (O&M) PLAN

The permittee must have a current written comprehensive Operation & Maintenance (O&M) Plan for this facility. The plan must specify how the permittee will 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. 06-096 CMR 530(2)(D)(4) STATEMENT FOR REDUCED/WAIVED TOXICS TESTING

By December 31 of each calendar year, the permittee must provide the Department with a certification describing any of the following that have occurred since the effective date of this permit ***[ICIS Code 96299]***. See **Attachment F** of the Fact Sheet of this permit 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; and

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 shall provide the Department with statements describing;

d. Changes in storm water collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge.

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

SPECIAL CONDITIONS

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

The Department reserves the right to reinstate routine surveillance level testing or other toxicity testing if new information becomes available that indicates the discharge may cause or have a reasonable potential to cause exceedances of ambient water quality criteria/thresholds.

K. NITROGEN

The permittee must operate the waste water treatment facility to optimize nitrogen removal in order to reduce to the extent practicable, with existing resources, the mass discharge of total nitrogen based on the seasonal daily average mass loading of total nitrogen as calculated by the Department. Seasonal is defined as May 1st – October 31st of each year. The existing seasonal daily average mass loading of total nitrogen will be calculated based a statistical evaluation of the 2019 and 2020 effluent monitoring data for total nitrogen.

On or before **December 31st** of each year beginning calendar year 2019, the permittee must submit an annual progress report ***(ICIS Code CSO10)*** to the Department that summarizes activities related to optimizing nitrogen removal efficiencies, documents the seasonal nitrogen discharge load from the facility and tracks trends relative to the previous year for total nitrogen. The progress report must also contain a scope of work or tasks/measures to be taken in the next 12-month period to further reduce the nitrogen loading from the treatment facility.

L. REPORTING DISCHARGES NOT RECEIVING SECONDARY TREATMENT

Pursuant to *Classification of Maine waters*, 38 M.R.S. § 464(1)(C) and *Standards for classification of estuarine and marine waters*, 38 M.R.S. § 465-B, which contain standards to achieve Maine's water quality goals for the designated uses of fishing, aquaculture, and propagation and harvesting of shellfish, the permittee must report all occurrences of secondary wastewater treatment system bypasses, upsets, disinfection system malfunctions, combined sewer overflows, and discharges resulting from sanitary sewer overflows, pump stations or broken sewer pipes immediately upon becoming aware of such a condition. Reporting must be provided through the Maine Department of Marine Resources' website at http://www.maine.gov/dmr/shellfish-sanitation-management/programs/reportevents/index.html or by calling the Maine Department of Marine Resources' Pollution Event Reporting Hotline at 207-633-9564. The permittee must initiate the current Emergency Response Plan prepared in conjunction with the Maine Department of Marine Resources, as appropriate, to prevent or minimize conditions that may endanger health or the environment. The permittee must report the event in accordance with the Emergency Response Plan between the permittee and the Maine Department of Marine Resources and provide the following information at the time the report is made:

SPECIAL CONDITIONS

L. REPORTING DISCHARGES NOT RECEIVING SECONDARY TREATMENT

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

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

M. MONITORING AND REPORTING

Electronic Reporting

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

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

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

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

SPECIAL CONDITIONS

M. MONITORING AND REPORTING (cont'd)

Toxsheet reporting forms must be submitted electronically as an attachment to an email sent to the Department assigned compliance inspector. In addition, a signed hardcopy of your Toxsheet must also be submitted. A signed copy of the DMR and all other reports required herein must be submitted to the Department assigned compliance inspector (unless otherwise specified) following address:

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

N. REOPENING OF PERMIT FOR MODIFICATION

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

O. SEVERABILITY

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

ATTACHMENT A

Maine Department of Environmental Protection

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 certify 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

Protocol for Nitrogen Sample Collection and Analysis for Waste Water Effluent

Approved Analytical Methods (from Table 1 B of Part 136 per the 2012 Method Update Rule): (laboratory must be certified for any method performed)

Total Kjeldahl Nitrogen (TKN):

Manual digestion and distillation or gas diffusion followed by any of the following	SM4500-Norg B-97 or C-97 and SM4500-NH3 B-97.	ASTM D3590-02 (06) (A)	I-4515-9145
Titration	SM4500-NH3 C-97	ASTM D3590-89, 02 (A)	973.48.3
Nesslerization		ASTM D1426-08 (A)	
Electrode	SM4500-NH3 D-97 or E-97	ASTM D1426-08 (B)	
Semi-automated phenate	EPA 350.1 Rev. 2.0 (1993)	SM4500-NH3 G-97 or H-97	
Manual phenate, salicylate, or other substituted phenols in Berthelot reaction based methods	SM4500-NH3 F-1997		
Automated methods for TKN that do not require manual digestion			
Automated phenate, salicylate, or other substituted phenols in Berthelot reaction based methods colorimetric (auto digestion and distillation)	EPA 351.1 (1978)		I-4551-788
Semi-automated block digestor colorimetric (distillation not required)	EPA 351.2, Rev. 2.0 (1993)	SM4500-Norg D-97	ASTM D3590-02 (06) (B)	I-4515-9145

Nitrate + Nitrite (NO3 + NO2):

Cadmium reduction, Manual		SM4500-NO3 E-00	ASTM D3867-04 (B)	
Cadmium reduction, Automated, or	EPA 353.2, Rev. 2.0 (1993)	SM4500-NO3 F-00	ASTM D3867-04(A)	I-4545-852
Automated hydrazine		SM4500-NO3 H-00		
Ion chromatography	EPA 300.0, Rev. 2.1 (1993) and EPA 300.1, rev. 1.0 (1997)	SM4110 B-00 or C-00	ASTM D4327-03	993.303
CIE/UV		SM4140 B-97	ASTM D6508-00 (05)	ASTM D6508, Rev. 2

Sample Collection: The Maine DEP is requesting that nitrogen analysis be conducted on composite effluent samples, unless a facility's Permit specifically designates grab sampling for this parameter. Facilities can use individual collection bottles or a single jug made out of glass or polyethylene. Bottles and/or jugs should be cleaned prior to each use with dilute H_2SO_4. This cleaning should be followed by several rinses with distilled water. Commercially purchased, pre-cleaned sample containers are an acceptable alternative. The sampler hoses should be cleaned; as needed.

Sample Preservation: During compositing the sample must be at 0-6 degrees C (without freezing). If the sample is being sent to a commercial laboratory or analysis cannot be performed the day of collection then the sample must be preserved using H_2SO_4 to obtain a sample pH of <2 su and refrigerated at 0-6 degrees C (without freezing). The holding time for a preserved sample is 28 days.

Laboratory QA/QC: Laboratories must follow the appropriate QA/QC procedures that are described in each of the approved methods.

Sampling QA/QC: If a composite sample is being collected using an automated sampler, then once per month run a blank on the composite sampler. Automatically, draw distilled water into the sample jug using the sample collection line. Let this water set in the jug for 24 hours and then analyze for total nitrogen. Preserve this sample as described above.

ATTACHMENT C

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
WHOLE EFFLUENT TOXICITY REPORT
MARINE WATERS

Facility Name _____ MEPDES Permit # _____ Pipe # _____

Facility Representative _____ Signature _____

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

Facility Telephone # _____ Date Collected _____ mm/dd/yy Date Tested _____ 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
	>90	>70
QC standard		
lab control		
receiving water control		
conc. 1 (%)		
conc. 2 (%)		
conc. 3 (%)		
conc. 4 (%)		
conc. 5 (%)		
conc. 6 (%)		
stat test used		

place * next to values statistically different from controls

Salinity Adjustment	
brine	
sea salt	
other	

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

Comments _____

Laboratory conducting test

Company Name _____ Company Rep. Name (Printed) _____

Mailing Address _____ Company Rep. Signature _____

City, State, ZIP _____ Company Telephone # _____

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

ATTACHMENT D

Printed 11/17/2015

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, % Acute	Effluent Limits, % Chronic	Receiving Water or Ambient	Effluent Concentration (ug/L or as noted) WET Result, % Do not enter % sign	Reporting Limit Check	Possible Exceedence (7) Acute	Possible Exceedence (7) Chronic
Mysid Shrimp							
Sea Urchin							

WET CHEMISTRY

pH (S.U.) (9)				NA			
Total Organic Carbon (mg/L)				NA			
Total Solids (mg/L)				NA			
Total Suspended Solids (mg/L)							
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]	Effluent Limits, ug/L Chronic[6]	Effluent Limits, ug/L Health[6]			Reporting Limit Check	Possible Exceedence (7) Acute	Possible Exceedence (7) Chronic	Possible Exceedence (7) Health
	TOTAL RESIDUAL CHLORINE (mg/L) (9)	0.05				NA					
	AMMONIA	NA				(8)					
M	ALUMINUM	NA				(8)					
M	ARSENIC	5				(8)					
M	CADMIUM	1				(8)					
M	CHROMIUM	10				(8)					
M	COPPER	3				(8)					
M	CYANIDE, TOTAL	5				(8)					
	CYANIDE, AVAILABLE (3a)	5				(8)					
M	LEAD	3				(8)					
M	NICKEL	5				(8)					
M	SILVER	1				(8)					
M	ZINC	5				(8)					

Maine Department of Environmental Protection
WET and Chem

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

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

Maine Department of Environmental Protection
WET and Chem

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

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

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

AND

MAINE WASTE DISCHARGE LICENSE

FACT SHEET

Date: **September 21, 2018**

PERMIT NUMBER: **ME0100218**

LICENSE NUMBER: **W002650-6D-I-R**

NAME AND ADDRESS OF APPLICANT:

TOWN OF FALMOUTH
271 Falmouth Rd.
Falmouth, ME. 04105

COUNTY: **Cumberland County**

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

RICHARD B. GOODENOW WASTEWATER TREATMENT FACILITY
96 Clearwater Dr.
Falmouth, ME. 04105

RECEIVING WATER(S)/CLASSIFICATION: **Presumpscot River Estuary/Class SC**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Robert "Peter" Clark, Supt.**
(207) 781-4462
pclark@town.falmouth.me.us

1. APPLICATION SUMMARY

a. Application: The Town of Falmouth (Town hereinafter) has submitted a timely and complete application to the Department for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0100218/Maine Waste Discharge License (WDL) #W002650-6D-G-R (permit hereinafter) which was issued on by the Department February 21, 2013, for a five-year term. The 2/21/13 permit authorized the discharge of up to a monthly average flow of 1.56 million gallons per day (MGD) of secondary treated sanitary waste waters from a publicly owned treatment works facility to the Presumpscot River estuary, Class SC, in Falmouth, Maine. See **Attachment A** of this Fact Sheet for a location map.

1. APPLICATION SUMMARY (cont.)

b. Source Description: The waste water treatment facility was originally constructed and went on-line in 1971. As indicated by the permittee, slightly more than half of the homes in Falmouth and Cumberland use onsite sewage disposal systems. The remaining homes in Falmouth, and the Town of Cumberland are served by this facility. The treatment facility receives sanitary waste waters generated by residential and commercial entities and has no categorical industrial users contributing flow or pollutant loads to the collection and or waste water treatment facility.

The sanitary sewer collection system consists of approximately fifty (50) miles of piping with thirty-one (31) pump stations. Fourteen (14) of the pump stations are equipped with on-site back-up power and the remainder are served by portable generators. All stations are equipped with visual and audio alarms connected to central SCADA computers incorporating alarm notification systems. The sanitary collection system is completely separated from the storm water collection system and as a result, there are no combined sewer overflow (CSO) points in the collection system. The facility is authorized to receive and treat up to 8,000 gallons per day of transported septage.

c. Waste Water Treatment: The facility provides a secondary level of treatment via an activated sludge system referred to as the Modified Ludzack – Ettinger process. The treatment plant headworks includes flow measurement in two Parshall flumes, a climber screen for rag removal and an aerated grit chamber for grit removal. Waste water is then treated in two aeration units. These units include preliminary and secondary anoxic zones with mechanical mixing, aerobic zones with fine bubble aeration, and pumping systems to recycle solids internally within the tank. Overflow from the aeration system is to two final clarifiers. Effluent from the clarifiers is then disinfected using sodium hypochlorite in a chlorine contact tank and dechlorinated using sodium bisulfite. The treatment facility has back-up power to power all treatment processes in the event of a power outage. The treated effluent is conveyed to the river through a 20-inch diameter 234-foot long pipe without a diffuser. The pipe is above high tide and discharges to the intertidal zone. At low tide, effluent flows in a ditch, through salt marsh and mudflat and combines with Skitterygusset Creek, before reaching the main channel of the Presumpscot River estuary. High tide comes up to the base of the outfall structure. See **Attachment B** of this Fact Sheet for a schematic of the treatment facility.

The facility was last upgraded in 2008 to provide nutrient reduction and increased ability to handle the peak wet weather flows. Upgrades included new screening, aeration tanks with anoxic zone and recycle, conversion of old units to increased clarifier volume, new chlorine contact tank, sludge pumping, sludge storage, septic storage and handling, and plant water systems.

The sludge handling equipment at the plant includes two aerobic digester with a combined capacity of 250,000 gallons, a "Bird" centrifuge dewatering unit. Dewatered sludge is composted by a contract vendor.

2. PERMIT SUMMARY

a. Terms & conditions: This permitting action is carrying forward all the terms and conditions of the previous permitting actions except that it;

1. Removes a monthly average water quality based mass limitation and concentration reporting requirement for total copper as a recent statistical evaluation indicates none of the most current 60 months of test results exceeds or has a reasonable potential to exceed applicable ambient water quality criteria (AWQC).

2. Incorporates a special condition requiring the permittee to immediately report all discharges of untreated waste water to the Maine Department of Marine Resources (DMR). This information will assist the DMR in determining whether to close conditionally approved shellfish harvesting areas impacted by the discharges.

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

September 2, 1993 – The EPA issued a renewal of NPDES permit #ME0100218 for a five-year term.

September 23, 1999 – The Department issued WDL #W002650-5L-C-R for a five-year term.

January 24, 2000 – The Department administratively modified WDL #W002650-5L-C-R by requiring the waste water facility to disinfect on a year-round basis as the Maine Department of Marine Resources determined the discharge was causing the closure of a shellfish area in Mackworth Cove.

May 23, 2000 – Pursuant to Department rule Chapter 519, *Interim Effluent Limitations and Controls for the Discharge of Mercury*, the Department administratively modified the 9/23/99 WDL by establishing interim average and maximum concentration limits for the discharge of mercury.

January 22, 2003 – The Department issued combination MEPDES permit #ME0100218/WDL #W002650-5L-E-R for a five-year term.

April 20, 2006 – The Department issued a modification of the 1/22/03 MEPDES permit by incorporating whole effluent toxicity (WET) and chemical specific testing requirements pursuant to Department rule Chapter 530, promulgated on October 12, 2005.

2. PERMIT SUMMARY

February 12, 2008 – The Department issued combination MEPDES permit #ME0100218/WDL #W002650-5L-F-R for a five-year term.

February 6, 2012 – The Department issued a modification of the 2/12/08 permit that reduced the monitoring frequency for total mercury from 4/Year to 1/Year.

February 21, 2013 - The Department issued combination MEPDES permit #ME0100218/WDL #W002650-6D-G-R for a five-year term.

November 14, 2017 – The Town of Falmouth submitted a timely and complete application to the Department to renew the MEPDES permit for the waste water treatment facility.

3. CONDITIONS OF PERMITS

Conditions of Licenses, 38 M.R.S. §414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, *Certain Deposits and Discharges Prohibited,* 38 M.R.S. §420 and *Surface Water Toxics Control Program*, 06-096 CMR 530 (effective October 9, 2005), require the regulation of toxic substances not to exceed levels set forth in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584 (last amended 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 STANDARDS

Classifications of estuarine and marine waters, 38 M.R.S. § 469(8) classifies the Presumpscot River estuary as a Class SC waterway. *Standards for classification of estuarine and marine waters,* 38 M.R.S. §465-B (3) describes the classification standards for Class SC waterways as follows;

Class SC waters must be of such quality that they are suitable for recreation in and on the water, fishing, aquaculture, propagation and restricted harvesting of shellfish, industrial process and cooling water supply, hydroelectric power generation, navigation and as a habitat for fish and other estuarine and marine life.

The dissolved oxygen content of Class SC waters must be not less than 70% of saturation. Between May 15th and September 30th, the numbers of enterococcus bacteria of human and domestic animal origin in these waters may not exceed a geometric mean of 14 per 100 milliliters or an instantaneous level of 94 per 100 milliliters. In determining human and

4. RECEIVING WATER STANDARDS (cont'd)

domestic animal origin, the department shall assess licensed and unlicensed sources using available diagnostic procedures. The numbers of total coliform bacteria or other specified indicator organisms in samples representative of the waters in restricted shellfish harvesting areas may not exceed the criteria recommended under the National Shellfish Sanitation Program, United States Food and Drug Administration.

Discharges to Class SC waters may cause some changes to estuarine and marine life provided that the receiving waters are of sufficient quality to support all species of fish indigenous to the receiving waters and maintain the structure and function of the resident biological community.

5. EXISTING WATER QUALITY CONDITIONS

Table Category 5B-1(a) entitled, *Estuarine and Marine Waters Attaining Some Designated Uses - Insufficient Information for Other Uses*, in a document entitled, State of Maine Department of Environmental Protection, 2016 Integrated Water Quality Monitoring and Assessment Report, published by the Department lists the Western Casco Bay and islands (Cape Elizabeth, South Portland, Portland, Falmouth, Long island, Great Chebeauge Island) (DMR Area #13), as prohibited from the harvesting of shellfish. The exception is a conditionally approved area between Waites Landing in Falmouth to the Falmouth landing. See **Attachment C** of this Fact Sheet for a map of Area #13. Non-attainment in this context is in regard to the designated use of harvesting of shellfish.

The Maine Department of Marine Resources (DMR) assesses information on shellfish growing areas to ensure that shellfish harvested are safe for consumption. The DMR has authority to close shellfish harvesting areas wherever there is a pollution source, a potential pollution threat, or poor water quality. The DMR traditionally closes shellfish harvesting areas if there are known sources of discharges with unacceptable bacteria levels (instream thresholds established in the National Shellfish Sanitation Program) or maintains shellfish harvesting closure areas due to lack of updated information regarding ambient water quality conditions. In addition, the DMR prohibits shellfish harvesting in the immediate vicinity of all wastewater treatment outfall pipes as a precautionary measure in the event of a failure in the treatment plant's disinfection system. Thus, DMR shellfish harvesting Area #13 is closed to the harvesting of shellfish due to insufficient or limited ambient water quality data to determine that the area meets the standards in the National Shellfish Sanitation Program. The Department is making the determination that compliance with the year round fecal coliform bacteria limits and other secondary wastewater treatment limits established in this permitting action ensure that the discharge of secondary treated wastewater from the Town of Falmouth wastewater treatment facility will not cause or contribute to the failure of the receiving waters to meet the standards of its designated classification.

5. EXISTING WATER QUALITY CONDITIONS

In addition, all estuarine and marine waters of the State are listed as, *"Category 5-D: Estuarine and Marine Waters Impaired by Legacy Pollutants."* Impairment in this context refers to the estuarine and marine waters partially supporting the designated use of fishing and harvesting of shellfish due to elevated levels of PCBs and other persistent bioaccumulating substances in lobster tomalley. The Department has no information that the discharge from the Falmouth facility is causing or contributing to this impairment.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

a. Flow: The previous permitting action contained a monthly average flow limitation of 1.56 MGD that is being carried forward in this permitting action as it remains representative of the monthly average design capacity of the facility. A review of the DMR data for the period January 2015 – November 2017 indicates the following:

Flow (DMRs 35)

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly Average	1.56	0.64 – 1.45	0.89
Daily Maximum	Report	0.71 – 3.93	1.47

b. Dilution Factors - Department Regulation Chapter 530, *Surface Water Toxics Control Program*, §4(A)(2) states that for discharges to the ocean, dilution must be calculated as near-field or initial dilution, or that dilution available as the effluent plume rises from the point of discharge to its trapping level, at mean low water level and slack tide for the acute exposure analysis and at mean tide for the chronic exposure analysis using appropriate models determined by the Department such as MERGE or CORMIX.

The previous permitting action contained dilution factors as follow:

Acute = 8.3:1 Chronic = 11:1 Harmonic mean [1] = 33:1

Footnote:

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

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

c. Biochemical Oxygen Demand (BOD5) & Total Suspended Solids (TSS): - The previous permitting action contained monthly and weekly average BOD5 and TSS best practicable treatment (BPT) concentration limits of 30 mg/L and 45 mg/L respectively, that were based on secondary treatment requirements of the Clean Water Act of 1977 §301(b)(1)(B) as defined in 40 CFR 133.102 and Department rule Chapter 525(3)(III). The maximum daily BOD5 and TSS concentration limits of 50 mg/L were based on a Department best professional judgment (BPJ) of BPT. All three concentration limits are being carried forward in this permitting action.

As for mass limitations, the previous permitting action established monthly average, weekly average and daily maximum mass limitations that are being carried forward in this permitting action and are based on a monthly average limit of 1.56 MGD. The mass limits were derived as follows:

Monthly average: (1.56 MGD)(8.34)(30 mg/L) = 390 lbs/day
Weekly average: (1.56 MGD)(8.34)(45 mg/L) = 585 lbs/day
Daily Maximum: (1.56 MGD)(8.34) (50 mg/L) = 650 lbs/day

Monitoring frequencies for BOD and TSS of 1/week, that the previous permit established, are based on a long standing Department policy for facilities with a monthly average flow greater than 1.0 MGD but less than 5.0 MGD.

A review of the DMR data for the period January 2015 – November 6, 2017 indicates the monthly average and daily maximum mass and concentration values have been reported as follows:

BOD Mass (DMRs = 35)

Value	Limit (lbs/day)	Range (lbs/day)	Average (lbs/day)
Monthly Average	390	21 - 112	47
Weekly Average	585	27 - 206	67
Daily Maximum	650	27 - 206	67

BOD Concentration(DMRs = 35)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	3.6 – 16	6.2
Weekly Average	45	3.9 – 19	8.0
Daily Maximum	50	3.9 – 19	8.0

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

TSS mass(DMRs = 35)

Value	Limit (lbs/day)	Range (lbs/day)	Average (lbs/day)
Monthly Average	390	13 - 97	47
Weekly Average	585	16 - 188	72
Daily Maximum	650	16 - 188	72

TSS concentration(DMRs = 35)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	1.9 – 13.6	6.2
Weekly Average	45	2.2 – 24.3	9.4
Daily Maximum	50	2.2 – 24.3	9.4

This permitting action is carrying forward a monthly average percent removal requirement of 85 percent for BOD_5 and TSS as required pursuant to 06-096 CMR 525(3)(III)(a&b)(3) for all flows receiving secondary treatment.

A reviewed of the monthly DMRs data for the period January 2015 – November 2017 indicates values have reported as follows:

BOD % Removal (DMRs=35)

Value	Limit (%)	Range (%)	Average (%)
Monthly Average	85	94 - 99	97

TSS % Removal (DMRs=35)

Value	Limit (%)	Range (%)	Average (%)
Monthly Average	85	93 – 99	98

d. Settleable Solids – The previous permitting action contained a daily maximum concentration limit of 0.3 ml/L for settleable solids that is being carried forward in this permitting action and is considered a Department BPJ of BPT for secondary treated waste waters.

The following table summarizes effluent data reported on DMRs for the period of January 2015 through November 2017.

Settleable solids (DMRs=35)

Value	Limit (ml/L)	Range (ml/L)	Average (ml/L)
Daily Maximum	0.3	<0.1 – <0.1	0.1

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

e. Fecal coliform bacteria – The previous permitting action contained year-round monthly average and daily maximum limits of 15 colony forming units (cfu)/100 ml and 50 cfu/100 ml respectively, based on a Department best professional judgment of limitations that are necessary to protect for the designated use of harvesting of shellfish. The limitations and the moinitoring frequency of 1/week are being carried forward in this permitting action. The limits were established on a year-round basis at the request of the Maine Department of Marine Resources in January 2000 in effort to maintain an open shellfish harvesting in the vicinity of the discharge from the treatment facility.

A review of the DMR data for the period January 2015 – November 2017 indicates the monthly average and daily maximum mass values have been reported as follows:

Fecal coliform bacteria

Value	Limit (col/100 ml)	Range (col/100 ml)	Mean (col/100 ml)
Monthly Average	15	0.2 – 3.5	1.3
Daily Maximum	50	1 – 21	3.5

f. Total Residual Chlorine: Limits on total residual chlorine are specified to ensure attainment of the in-stream water quality criteria for chlorine and that BPT technology is utilized to abate the discharge of chlorine. Permits issued by this Department impose the more stringent of the calculated water quality based or BPT based limits. The previous permitting action established monthly average and daily maximum water quality based limitations of 0.08 mg/L and 0.1 mg/L respectively, along with a 1/day monitoring requirement. End-of-pipe water quality based thresholds for TRC may be calculated as follows:

Acute (A) Criterion	Chronic (C) Criterion	A & C Dil. Factors	Calculated Acute Limit	Chronic Limit
0.013 mg/L	0.0075 mg/L	8.3:1, 11:1	0.11 mg/L	0.08 mg/L

Example calculation: Acute (0.013 mg/L)(8.3) = 0.11 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 unless the calculated acute water quality based threshold is lower than 1.0 mg/L. For facilities that need to de-chlorinate the discharge 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. In the case of the Falmouth, the acute water quality based threshold calculated of 0.1 mg/L is lower than the BPT limit of 0.3 mg/L, thus the water quality based limit of 0.1 mg/L is imposed as a daily maximum limit. As for the monthly average limit, the chronic water quality based threshold calculated of 0.08 mg/L is lower than the BPT limit of 0.1 mg/L thus, the water quality based limit of 0.08 mg/L is imposed as a monthly average limit.

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

A review of the DMR data for the period January 2015 – November 2017 indicates the monthly average and daily maximum mass values have been reported as follows:

Total residual chlorine

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	0.08	<0.05 – <0.05	<0.05
Daily Maximum	0.1	<0.05 – <0.05	<0.05

This permit is carrying forward the 1/Day monitoring frequency based on best professional judgement of a monitoring frequency necessary to determine on-going compliance with the water quality based limitations.

g. pH – The previous permitting action contained a pH range limit of 6.0 –9.0 standard units pursuant to Department rule found at 06-096 CMR Chapter 525(3)(III)(c). The limits are considered BPT. The previous permit contained a monitoring frequency of 5/Week. Both are being carried forward in this permitting action.

A review of the DMR data for the period January 2015 – November 2017 indicates the monthly average and daily maximum mass values have been reported as follows:

pH (DMRs=35)

Value	Limit (su)	Range
Range	6.0 – 9.0	6.0 – 7.03

h. Whole Effluent Toxicity (WET) and Chemical Specific Testing –Maine law, 38 M.R.S., Sections 414-A and 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. Department Rules, 06-096 CMR Chapter 530, Surface Water Toxics Control Program, and Chapter 584, Surface Water Quality Criteria for Toxic Pollutants set 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 Chapter 530 is included in this permit in order to fully characterize the effluent. This permit also 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. 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 invertebrate and vertebrate species. Priority pollutant and analytical chemistry testing 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 as established in Chapter 584.

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

Chapter 530 establishes four categories of testing requirements based predominately on the chronic dilution factor. The categories 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 >500:1 and Q ≤1.0 MGD.

Department rule Chapter 530 (2)(D) specifies the criteria to be used in determining the minimum monitoring frequency requirements for WET, priority pollutant and analytical chemistry testing. Based on the Chapter 530 criteria, the permittee's facility falls into the Level I frequency category as the facility has a chronic dilution factor <20:1. Chapter 530(2)(D)(1) specifies that routine surveillance and screening level testing requirements are as follows:

Screening level testing

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

Surveillance level testing

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

See **Attachment D** of this Fact Sheet for a summary of the WET test results and **Attachment E** of this Fact Sheet for a summary of the chemical-specific test results submitted to the Department to date.

Chapter 530(2)(D)(3)(d) states in part that for Level I facilities "... *may reduce surveillance testing to one WET or specific chemical series per year provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedence as calculated pursuant to section 3(E)".*

Chapter 530 §(3)(E) states "*For effluent monitoring data and the variability of the pollutant in the effluent, the Department shall apply the statistical approach in Section 3.3.2 and Table 3-2 of USEPA's "Technical Support Document for Water Quality-Based Toxics Control" (USEPA Publication 505/2-90-001, March, 1991, EPA, Office of Water, Washington, D.C.) to data to determine whether water-quality based effluent limits must be included in a waste discharge license. Where it is determined through this approach that a discharge contains pollutants or WET at levels that have a reasonable potential to cause or contribute to an exceedance of water quality criteria, appropriate water quality-based limits must be established in any licensing action.*"

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

WET test evaluation

Chapter 530 §3 states, "*In determining if effluent limits are required, the Department shall consider all information on file and effluent testing conducted during the preceding 60 months. However, testing done in the performance of a Toxicity Reduction Evaluation (TRE) approved by the Department may be excluded from such evaluations.*"

The previous permit established a C-NOEL limit for the sea urchin as a statistical evaluation conducted at that time indicated the discharge had a reasonable potential to exceed the C-NOEL threshold of 9.1%. Therefore, said limit was established for the sea urchin. On March 9, 2018, the Department conducted a statistical evaluation on the most recent 60 months of WET test results on file with the Department in accordance with the statistical approach in Chapter 530. The statistical evaluation indicates there are no A-NOEL or C-NOEL test results for the mysid shrimp or sea urchin that exceed or have a reasonable potential to exceed the critical water quality thresholds of 12% and 9.1% respectively. Therefore, this permit is eliminating the C-NOEL limitation of 9.1% for the sea urchin and reducing the surveillance testing requirement from 2/Year to 1/Year.

Therefore, beginning upon issuance of this permit and lasting through 24 months prior to permit expiration (years 1-3 of the permit) and commencing again 12 months prior to permit expiration (year 5 of the permit). Surveillance level WET testing is as follows:

Level	WET Testing
I	1 per year for the mysid shrimp 1 per year for the sea urchin

Chapter 530 §(2)(D) states:

(4) All dischargers having waived or reduced testing must file statements with the Department on or before December 31 of each year describing the following.

(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; and

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

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

Special Condition J, 06-096 CMR 530 (2)(D)(4) *Statement For Reduced/Waiver Toxics Testing,* of this permitting action requires the permittee to file an annual certification with the Department.

Department rule Chapter 530 (2)(D)(1) specifies that screening level testing is to be established as follows:

Beginning 24 months prior to and lasting through 12 months prior to permit expiration (year 4 of the permit) and every five years thereafter.

Level	WET Testing
I	4 per year for the mysid shrimp 4 per year for the sea urchin

Analytical chemistry & priority pollutant testing evaluation

The previous permit established a water quality based mass limit for total copper as a statistical evaluation at that time indicated the discharge had a reasonable potential to exceed the chronic AWQC for total copper.

As with WET test results, on March 9, 2018, the Department conducted a statistical evaluation on the most recent 60 months of analytical chemistry and priority pollutant test results on file with the Department in accordance with the statistical approach outlined in Chapter 530. The statistical evaluation indicates there are no test results for any parameters that exceed or have a reasonable potential to exceed any acute or chronic AWQC. Therefore, the limitation for total copper in the previous permit is being eliminated in this permit.

Chapter 530(2)(D)(3)(d) states in part that for Level I facilities "... *may reduce surveillance testing to one WET or specific chemical series per year provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedence as calculated pursuant to section 3(E)".* Therefore, based on the results of the 3/9/18 evaluation report, this permit action establishes surveillance level priority pollutant and analytical testing requirements as follows:

Beginning upon permit issuance and lasting through 24 months prior to permit expiration (years 1-3 of the permit) surveillance level testing requirements are as follows;

Level	Priority pollutant testing	Analytical chemistry
I	Not required	1 per year

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

And commencing again 12 months prior to permit expiration (year 5 of the permit). Department rule Chapter 530 (2)(D)(1) specifies that screening level testing is to be establishes for analytical chemistry and priority pollutant testing requirements as follows:

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 screening level testing is as follows:

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

As with WET testing, Chapter 530 (2)(D) requires an annual certification to qualify for reduced testing. Special Condition J, 06-096 CMR 530 (2)(D)(4) *Statement for Reduced/Waived Toxics Testing*, of this permitting action requires the permittee to file an annual certification with the Department.

i. Mercury - On May 23, 2000, pursuant to *Certain deposits and discharges prohibited*, 38 M.R.S. § 420 and *Waste discharge licenses*, 38 M.R.S.A. § 413 and *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001), the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee, administratively modifying WDL #W002650-5L-C-R by establishing interim average and maximum effluent concentration limits of 22.5 parts per trillion (ppt) and 33.8 ppt, respectively, and a minimum monitoring frequency requirement of four (4) tests per year for mercury. It is noted the limitations have been incorporated into Special Condition A, *Effluent Limitations And Monitoring Requirements*, of this permit. 38 M.R.S.A. § 420(1-B)(B)(1) provides that a facility is not in violation of the AWQC for mercury if the facility is in compliance with an interim discharge limit established by the Department. A review of the Department's data base for the period September 1998 – June 2016 indicates mercury test results have ranged from 0.79 ppt to 39.7 ppt with an arithmetic mean (n=62) of 7.8 ppt.

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

j. Nitrogen - The USEPA requested the Department evaluate the reasonable potential for the discharge of total nitrogen to cause or contribute to non-attainment of applicable water quality standards in marine waters, namely aquatic life use support. The permittee voluntarily participated in a Department-coordinated project to determine typical effluent nitrogen concentrations, and submitted monthly composite samples from May-October, 2008 (n = 6). The mean value of the permittee's six samples was 7.9 mg/L. Although a small sample size, this 2008 mean value compares well with internal total nitrogen data generated by the facility between 2011 and 2017 (n= ~200) that indicate a mean value differing by 0.1 mg/L. For this reasonable potential evaluation, the Department considers 7.9 mg/L to be representative of total nitrogen discharge levels from the Falmouth facility.

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 the more systemic types of influences associated with total nitrogen in the marine environment. Falmouth discharges to the estuarine portion of the Presumpscot River, which is a relatively confined, tidal flat-dominated embayment that empties into the inner Casco Bay. The tidally averaged flushing rate of the Presumpscot River estuary (head of tide to the Route 1 Bridge) is approximately 3,415 cfs (2,200 MGD). Based on the Department's hydraulic modeling of the Presumpscot River estuary, the far-field dilution factor for Falmouth's discharge has been determined to be approximately 1,410:1 (see calculation below).

Tidal Flushing Volume = 2,200 MGD
Discharge Flow Rate= 1.56 MGD

$$\frac{2{,}200 \text{ MGD}}{1.56 \text{ MGD}} = 1{,}410{:}1$$

Total nitrogen concentrations in effluent = 7.9 mg/L
Far-field dilution factor = 1,410:1

$$\text{In-stream concentration after dilution: } \frac{7.9 \text{ mg/L}}{1{,}410} = 0.006 \text{ mg/L}$$

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

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

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 (DO) as the indicator, and 0.32 mg/L for the protection of aquatic life using eelgrass as the indicator. Due to the absence of mapped eelgrass within the estuary (see below paragraphs), the Department is using a threshold value of 0.45 mg/L to protect aquatic life using dissolved oxygen as the indicator.

Beyond the salt marsh channel to which the Falmouth effluent is discharged, the vast majority of the Presumpscot River estuary is intertidal and therefore the only suitable eelgrass habitat is along the low intertidal and shallow subtidal banks within the narrow channel (see low tide imagery in Fig. 1). The nearest suitable eelgrass habitat is approximately 0.6 km from the discharge location. Four known surveys have been completed within the Presumpscot River estuary that have documented presence/absence of eelgrass. The 1970's Timson (Maine Geological Survey) Coastal Marine Geological Environments information referenced in other marine discharge permits is not being utilized for this permit due to deficiencies in the aerial imagery and groundtruthing methods used for eelgrass delineation. The first and second eelgrass surveys considered in this permit occurred in 1993 and 2001 by the Maine Department of Marine Resources, and the third and fourth in 2013 and 2017 by the Maine Department of Environmental Protection. None of the four surveys documented eelgrass within the Presumpscot River estuary, and consistently identified eelgrass no closer than the southeastern side of Mackworth Island (4 km from the discharge location). June 2018 draft aerial imagery currently under review by a DEP contractor similary has not indicated eelgrass presence within the Presumpscot River estuary.

The Department and external partners have been collecting ambient total nitrogen data along Maine's coast. For the vicinity of the Falmouth discharge, the Department calculated a weighted mean background concentration of 0.34 mg/L (n = 35) based on surface water data collected at three sites (Figure 1, Table 1) within and just outside of the Presumpscot River estuary between May and October of a given year. The weighted mean value was calculated to account for differences in sample size between sites bracketing the estuary as well as considerably more water volume entering the estuary from Casco Bay as compared to the Presumpscot River between May and October. Further, and to avoid potential influence of the Falmouth discharge on the background calculation, total nitrogen data were only used from late ebb or slack low tides for Site #1 (PRV70), and from late flood or slack high tides for Site #2 (PRVRT1) and Site #3 (CBPR). Use of this data subset is intended to represent typical total nitrogen concentrations entering the estuary from the non-tidal River and Casco Bay, respectively (Figure 1, Table 1). Although additional total nitrogen data are available from sites in the vicinity of the East End of Portland, these data may be more directly influenced by the

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

Portland Water District's discharges and non-point source nitrogen from the adjacent upland. Similarly, total nitrogen data from the outlet of Back Cove may not represent the nitrogen characteristics of the larger Casco Bay water that fills the Presumpscot River estuary on a flood tide, and therefore were not used in the background total nitrogen calculation. Based on the calculated ambient mean total nitrogen value for this receiving water, the estimated increase in ambient total nitrogen after reasonable opportunity for mixing in the far-field is 0.34 mg/L + 0.006 mg/L = 0.35 mg/L.

Figure 1. Numbered monitoring sites in proximity to Falmouth POTW outfall (yellow symbol). Green polygons show 2013 mapped eelgrass. Minimum distance from outfall to potentially suitable eelgrass habitat is approximately 0.6 km, yet no eelgrass has been documented within the estuary.

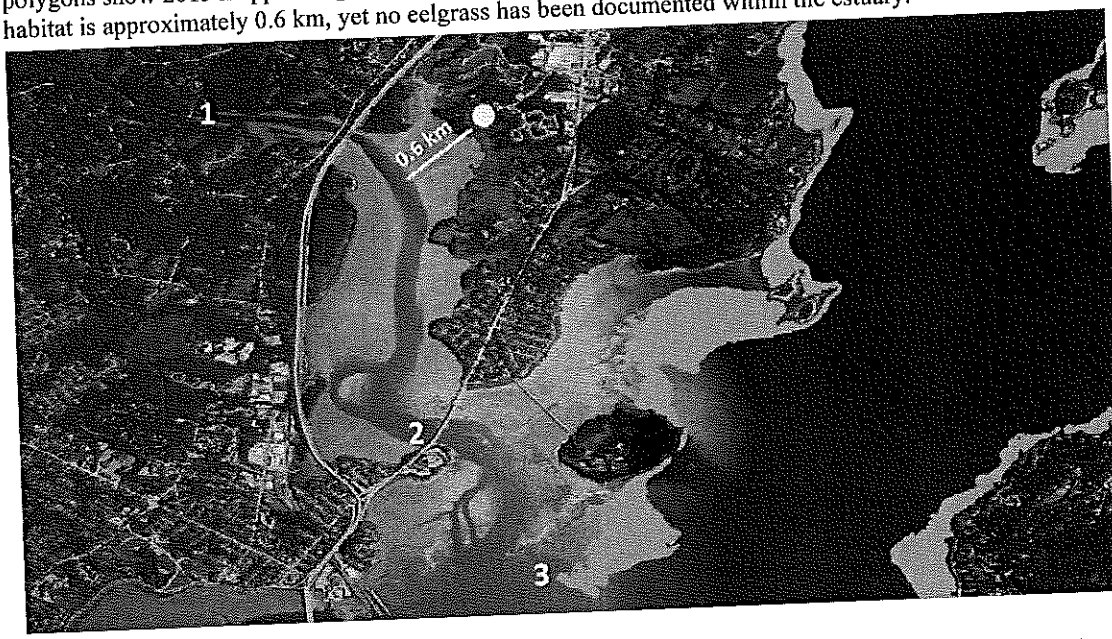


Table 1. Monitoring sites used for calculation of background Total Nitrogen (TN) weighted mean, with summary statistics.

Site #	Site Name (Monitoring Org.)	TN Data Collection Years	Total Nitrogen (mg/L)			
			n	min.	max.	mean
1	Walton Park – PRV70 (FOCB, DEP)	2007, 2008, 2012, 2017	27	0.13	0.76	0.38
2	Presumpscot River estuary – PRVRT1 (DEP)	2013, 2017	4	0.26	0.34	0.31
3	Presumpscot River estuary – CBPR (DEP)	2013, 2017	4	0.28	0.40	0.34

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

In 2017, the Department monitored water quality at Sites #1-3 as part of a larger effort surrounding the East End of Portland. For the purpose of assessing potential impacts of the Falmouth wastewater effluent on aquatic life, available total nitrogen, light attenuation, turbidity, transparency and total suspended solids data were divided in such a way to assess differences between water masses entering and exiting the Presumpscot River estuary. For all parameters, there were no differences in mean values between water masses. Absolute values of the light attenuation coefficient entering the estuary during 2017 averaged 0.60 ± 0.06 m^{-1}, while those exiting the estuary averaged $0.82 \pm$ 0.20. Total suspended solids and turbidity values were relatively low overall (1.3-8.6 mg/L and 0-4.7 NTU, respectively) within the data subsets, and transparency values ranged from 0.8-3.2 m, suggesting that higher light attenuation may have been caused by turbidity deeper in the water column.

The presence of abundant nuisance macroalgae may indicate eutrophic conditions within the shallow nearshore environment. Friends of Casco Bay staff spend significant time on and near Casco Bay and were not able to recall green macroalgal blooms occurring on the Presumpscot River estuary tidal flats (M. Doan, pers. comm. January 2017), including during the summers of 2016 and 2017 when blooms occurred in the adjacent Back Cove and in Mill Cove in the outer Fore River. In summary, the lack of differences in relevant indicator data and lack of observation of nuisance macroalgal blooms demonstrate that based on recent ambient information, the Falmouth discharge has not contributed measurably to eutrophication within the estuarine receiving water. Additional ambient monitoring data are needed to improve sample size, reduce variability, and to determine how wet weather events will elucidate the role of the Presumpscot River in the characteristics of the estuarine receiving water.

Ambient total nitrogen data presented in Table 1 indicate a weighted mean value (0.35 mg/L) do not exceeding the threshold value for protection of dissolved oxygen (0.45 mg/L). The ambient weighted mean value is interpreted with caution given the small TN sample size for sites at the mouth of the estuary. Existing eutrophication indicator data, albeit limited, does not demonstrate non-attainment of narrative water quality standards. The Department conducted ambient monitoring within the estuary in 2018. Based on the above reasonable potential evaluation using facility-specific effluent and available ambient data, and in the absence of any information that the receiving water is not attaining standards due to the Falmouth discharge, the Department is making a best professional judgment determination that the discharge of total nitrogen from the Falmouth facility does not exhibit a reasonable potential to exceed applicable water quality standards for Class SC waters.

7. DISPOSAL OF TRANSPORTED WASTE IN WASTE WATER TREATMENT FACILITY

The permittee's application for permit renewal requested the Department approve authorization to accept and treat up to 8,000 gpd of transported wastes. Standards For The Addition of Transported Wastes to Wastewater Treatment Facilities, 06-096 CMR 555 (effective March 9, 2009), limits the quantity of transported wastes received at a facility to 1% of the design capacity of the treatment facility if the facility utilizes a side stream or storage method of introduction into the influent flow, or 0.5% of the design capacity of the facility if the facility does not utilize the side stream or storage method of introduction into the influent flow. A facility may receive more than 1% of the design capacity on a case-by-case basis. The permittee does not utilize a side stream storage method as transported wastes are introduced into the headworks of the facility. With a design capacity of 1.56 MGD, 8,000 gpd represents 0.5% of said capacity. The Department has reviewed and approved the permittee's most current Septage Management Plan and determined that under normal operating conditions, the addition of 8,000 gpd via metered conditions of transported wastes into the facility will not cause or contribute to upset conditions of the treatment process.

8. ANTI-BACKSLIDING

Federal regulation 40 CFR, §122(l) contains the criteria for what is often referred to as the anti-backsliding provisions of the Federal Water Pollution Control Act (Clean Water Act). In general, the regulation states that except for provisions specified in the regulation, effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards or conditions in the previous permit. Applicable exceptions include(1) material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation and(2) information is available which was not available at the time of the permit issuance (other than revised regulations, guidance or test methods) and which would justify the application of less stringent effluent limitations at the time of permit issuance.

This permitting action is eliminating a monthly average water quality based mass limitation for total copper based on a statistical evaluation of the most current 60 months of test results. The Department has made the determination that eliminating the limitation is based on new information that was not available at the time of the previous permitting action.

9. ANTI-DEGREDATION - IMPACT ON RECEIVING WATER QUALITY

Maine's anti-degradation policy is included in 38 M.R.S. Section 464(4)(F) and addressed in the *Conclusions* section of this permit. Pursuant to the policy, where a new or increased discharge is proposed, the Department shall determine whether the discharge will result in a significant lowering of existing water quality. Increased discharge means a discharge that would add one or more new pollutants to an existing effluent, increase existing levels of pollutants in an effluent, or cause an effluent to exceed one or more of its current licensed discharge flow or effluent limits, after the application of applicable best practicable treatment technology.

This permitting action is not increasing the limitations for any paramerters. As permitted, the Department has determined the existing and designated water uses will be maintained and protected and the discharge will not cause or contribute to the failure of the Presumpscot River estuary to meet standards for Class SC classification.

10. PUBLIC COMMENTS

Public notice of this application was made in the Portland Press Herald newspaper on or about November 8, 2017. 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 shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

11. DEPARTMENT CONTACTS

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

Gregg Wood
Division of Water Quality Management
Bureau of Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017
Email: gregg.wood@maine.gov

Telephone (207) 287-7693

12. RESPONSE TO COMMENTS

During the period of September 21, 2018, through the issuance date of the permit/license, the Department solicited comments on the proposed draft permit/license to be issued for the discharge(s) from the permittee's facility. The Department received written comments from the permittee (Falmouth) and the Friends of Casco Bay (FOCB). Responses to those comments are as follows:

12. RESPONSE TO COMMENTS (cont'd)

Comment #1 (FOCB): The FOCB strongly disagrees with the Department relying on the far field dilution model for reasonable potential analysis for nitrogen because it ignores the near field signs of impairment, sets too large a dilution field and is not accepted or used in any other jurisdiction. The commenter states that in the Fact Sheet of the PWD East End permit, the Department acknowledges that the far field model was preliminary and indicated that it would continue to consult with an outside modeler and committed to collecting more data to refine the model. The commenter claims the Department has not continued to consult with an outside modeler and has not refined its preliminary far field dilution model. The commenter urges the Department to cease the use of the far field dilution model, continue work on a new model or other method of determining reasonable potential that focuses on the near field, and to note in the Fact Sheet that the FOCB and EPA object to the far field dilution model.

Response #1: The Department is aware the FOCB and the EPA disagree with the far field modeling approach. The EPA did not comment on the Falmouth but did disagree with the approach in the PWD East End permit. However, to date, neither the FOCB or the EPA have suggested an alternate approach. The Department believes assessing nitrogen impacts in the far field is more appropriate than assessing the near field as is done with toxics. With the exception of ammonia, nitrogen is not acutely or chronically toxic so larger areas than the zone of initial dilution must be assessed. Given the significant flushing action of Casco Bay, particularly in the vicinity of the Falmouth outfall where the embayment completely empties twice per day, nitrogen impacts must be assessed in the far-field. Contrary to the commenters statement that the Department is not consulting with an outside modeler, the Department is indeed consulting with an outsider modeler on another discharge permit where far field modeling for nitrogen is being conducted using a more sophisticated model. The Department is in discussions with the modeler to obtain a copy of the model. The Department spent the summer of 2018 assessing eelgrass beds in the Casco Bay to establish baselines as to their locations and the health of the beds. In addition, the Department also participated in joint ambient water quality monitoring during the season May through October 2018, collecting data on dissolved oxygen, chlorophyll *a*, nitrogen, phosphorus, temperature, salinity, pH and light attenuation at a frequency of 3/Week. All these data sets will be utilized as input values into the new model.

The Casco Bay Estuary Partnership has developed a plan entitled *Casco Bay Plan 2016 – 2021* which outlines a scope of work and schedule using an adaptive management approach to fill data gaps and improve modeling of the Casco Bay. This information will assist all parties in future cost/benefit analyses to evaluate different nitrogen control strategies whether it be treatment upgrades or process control strategies at waste water treatment facilities, storm water management and or treatment, land conservation, land development efforts or some other alternative(s) resulting in financial investments that will give the highest return on those investments.

12. RESPONSE TO COMMENTS (cont'd)

At this time, the Department maintains its position that given the significant flushing of the bay twice per day and that the introduction of nitrogen into Casco Bay system does not exert an immediate environmental response such as is the case with toxic pollutants, the far-field dilution as calculated by the Department to date is the appropriate tool to assess whether the discharge from any of the discharges to Casco Bay is causing, contributing or has a reasonable potential to cause or contribute to a violation of water quality standards.

Comment #2 (FOCB): The commenter disagrees with the reduction in the monitoring frequency from 1/Week to 1/Month for nitrogen compounds after the first two years of monitoring. The commenter states 1/Month sampling will be insufficient to determine whether or not the POTW is able to continue to optimize nitrogen removal to reduce to the extent practicable, with the existing resources, the mass discharge of total nitrogen based on a seasonal daily average mass loading of total nitrogen as calculated by the Department. How can the Department possibly determine whether optimization is effective with 1/Month monitoring? The commenter requests the Department mandate 1/Week composite nitrogen testing over the 5-year term of the permit and continue its own monitoring of nitrogen levels and signs of impairment in the receiving waters.

Response #2: The Department disagrees with the commenters assessment. The focused 1/Week monitoring of the effluent for two seasons (May – October for 2019 and 2020) will provide the Department with an adequate and statistically defensible baseline for the facility. Given the facility has been in the nitrogen removal mode for over ten years with results at or about the limits of technology currently in place, the Department expects the data to show a low coefficient of variation. Thus, the Department believes a 1/Month seasonal monitoring requirement for the last three years of the permit is sufficient to determine whether optimization is being maintained. Therefore, the permit remains unchanged.

Comment #3 (FOCB): The commenter would like the Fact Sheet to accurately reflect when the upgrades were made and discuss how optimization might occur beyond what the plant currently does.

Response #3: The Fact Sheet already contains the following text: "The facility was last upgraded in 2008 to provide nutrient reduction and increased ability to handle the peak wet weather flows. Upgrades included new screening, aeration tanks with anoxic zone and recycle, conversion of old units to increased clarifier volume, new chlorine contact tank, sludge pumping, sludge storage, septic storage and handling, and plant water systems."

Speculating on future optimization efforts is premature. The facility has performed at a steady state of nitrogen removal beginning a year or two after the upgrade was completed and has remained that way up through calendar year 2018. The permittee will collect the effluent data for nitrogen for the summers of 2019 and 2020 and make whatever adjusts to optimize nitrogen removal with the existing resources it has in place. Therefore, the Fact Sheet remains unchanged.

12. RESPONSE TO COMMENTS (cont'd)

Comment #4 (Falmouth): The commenter has concerns with the proposed requirements to optimize the removal of nitrogen on a seasonal basis, plans to establish a mass loading for the facility, the requirement to submit an annual report detailing results and trends and plans to further reduce nitrogen on an on-going basis. The commenter believes the inclusion of such language could result in regulation of the discharge such that anti-backsliding provisions would be applicable even without the presence of a permit limit in the effluent limits table.

The commenter believes the additional seasonal monitoring provides no new information that improves the understanding of the impacts from the discharge or which would significantly influence what can be done to demonstrate further reduction levels in the discharge. The commenter sees the proposed testing as redundant and the optimization requirement as having been met for an extensive period with no possibility for further improvement and having no reason to deviate from the current treatment scheme.

The commenter requests the Department provide a narrative summary noting the new nitrogen requirements and the justification for their imposition.

Response #4: The inclusion of the monitoring and reporting for nitrogen compounds, as well as calculating a seasonal daily average mass loading for the facility is designed to establish a baseline for the quantity of nitrogen being discharged to Casco Bay on a daily basis during the warmer months. This baseline is not a limitation and in no way limits the quantity of nitrogen being discharged from the facility. Therefore, antibacksliding is not applicable.

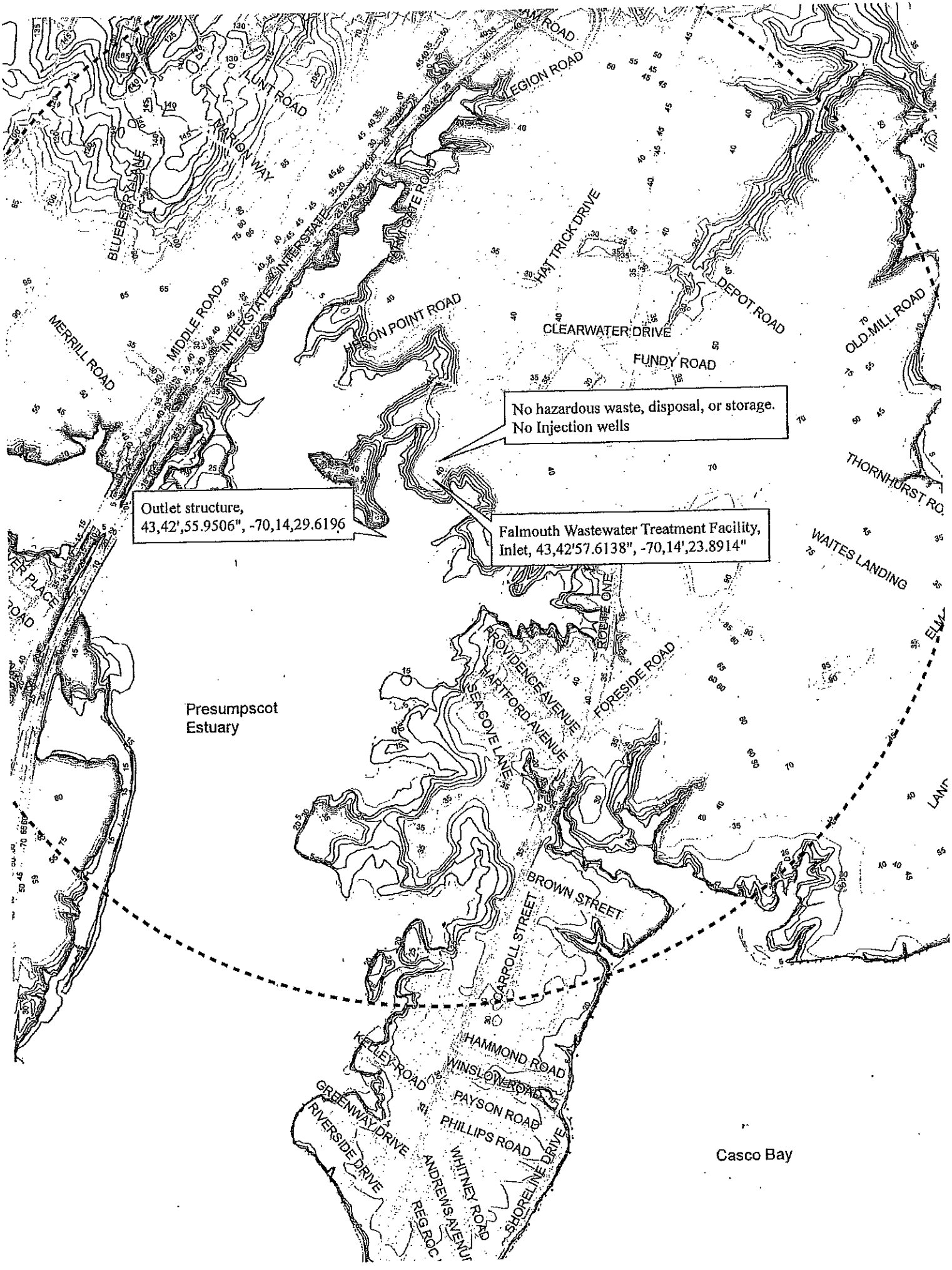
The purposing of monitoring the effluent for nitrogen compounds for two seasons is to collect certified laboratory data on effluent being discharged to Casco Bay. Calculating a seasonal daily average mass loading for this facility and all other dischargers to Casco Bay is important information for the Department as well the Casco Bay Estuary Partnership (CBEP). This will allow these entities to quantify point sources nitrogen loading to the bay based on certified laboratory results that are defensible. The Casco Bay Estuary Partnership has developed a plan entitled *Casco Bay Plan 2016 – 2021* which outlines a scope of work and schedule using an adaptive management approach to fill data gaps and improve modeling of the Casco Bay. This information will assist all parties in future cost/benefit analyses to evaluate different nitrogen control strategies whether it be treatment upgrades or process control strategies at waste water treatment facilities, storm water management and or treatment, land conservation, land development efforts or some other alternative(s) resulting in financial investments that will give the highest return on those investments. The intent is not to gather data to establish water quality based limitations for dischargers.

12. RESPONSE TO COMMENTS (cont'd)

Comment #5 (Falmouth): The commenter requests the Department use of a baseline nitrogen concentration in section 6j of the Fact Sheet be changed from 7.9 mg/L of total nitrogen to the statewide average of 17.2 mg/L total nitrogen and that testing completed by the Town for operational purposes will document the optimization possible by the nitrate cycle. The commenter states there are no significant opportunities for optimization of the existing facility over what has been typical for the last ten years and the only way to demonstrate optimization would be to compare the facility to some less effective operation.

Response #5: The Department disagrees with the commenter. The reasonable potential calculations are performed to determine if the present discharge from the Falmouth facility is causing or contributing ambient water quality concerns. The statewide average of 17.2 mg/L represents the mean of a larger data set that is comprised of a limited data set (3 or 4 tests) for each facility. Anytime the Department has site specific data for a facility such as Falmouth, it will utilize that data as it represents a more accurate characterization of the discharge from the facility and its potential impact on the receiving waters. The Department considers this assessment more meaningful and therefore, the Fact Sheet remains unchanged.

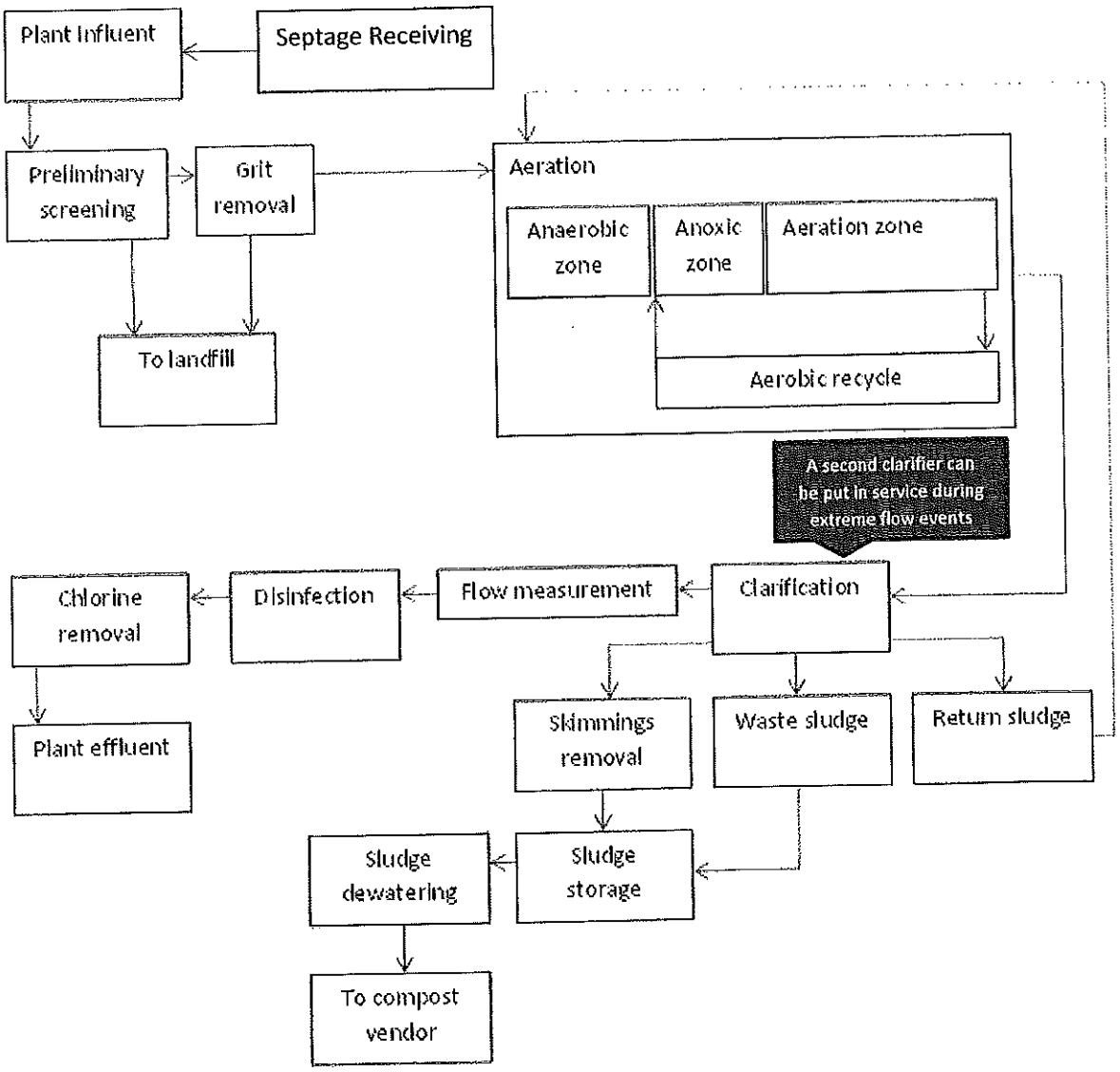
ATTACHMENT A


No hazardous waste, disposal, or storage.
No Injection wells
Outlet structure,
43,42',55.9506", -70,14,29.6196
Falmouth Wastewater Treatment Facility,
Inlet, 43,42'57.6138", -70,14',23.8914"
Presumpscot
Estuary
Casco Bay
BLUEBERRY LANE
LUNT ROAD
RARION WAY
INTERSTATE
MIDDLE ROAD
MERRILL ROAD
FARM GATE ROAD
LEGION ROAD
HERON POINT ROAD
HAT TRICK DRIVE
DEPOT ROAD
CLEARWATER DRIVE
FUNDY ROAD
OLD MILL ROAD
THORNHURST RO
WAITES LANDING
ROUTE ONE
PROVIDENCE AVENUE
HARTFORD AVENUE
SEACOVE LANE
FORESIDE ROAD
BROWN STREET
CARROLL STREET
HAMMOND ROAD
WINSLOW ROAD
PAYSON ROAD
PHILLIPS ROAD
WHITNEY ROAD
SHORELINE DRIVE
ANDREWS AVENUE
KELLEY ROAD
GREENWAY DRIVE
RIVERSIDE DRIVE

ATTACHMENT B

Form DEPLW0106 item 2.A, 3.A

Attachment, Plant Process Diagram

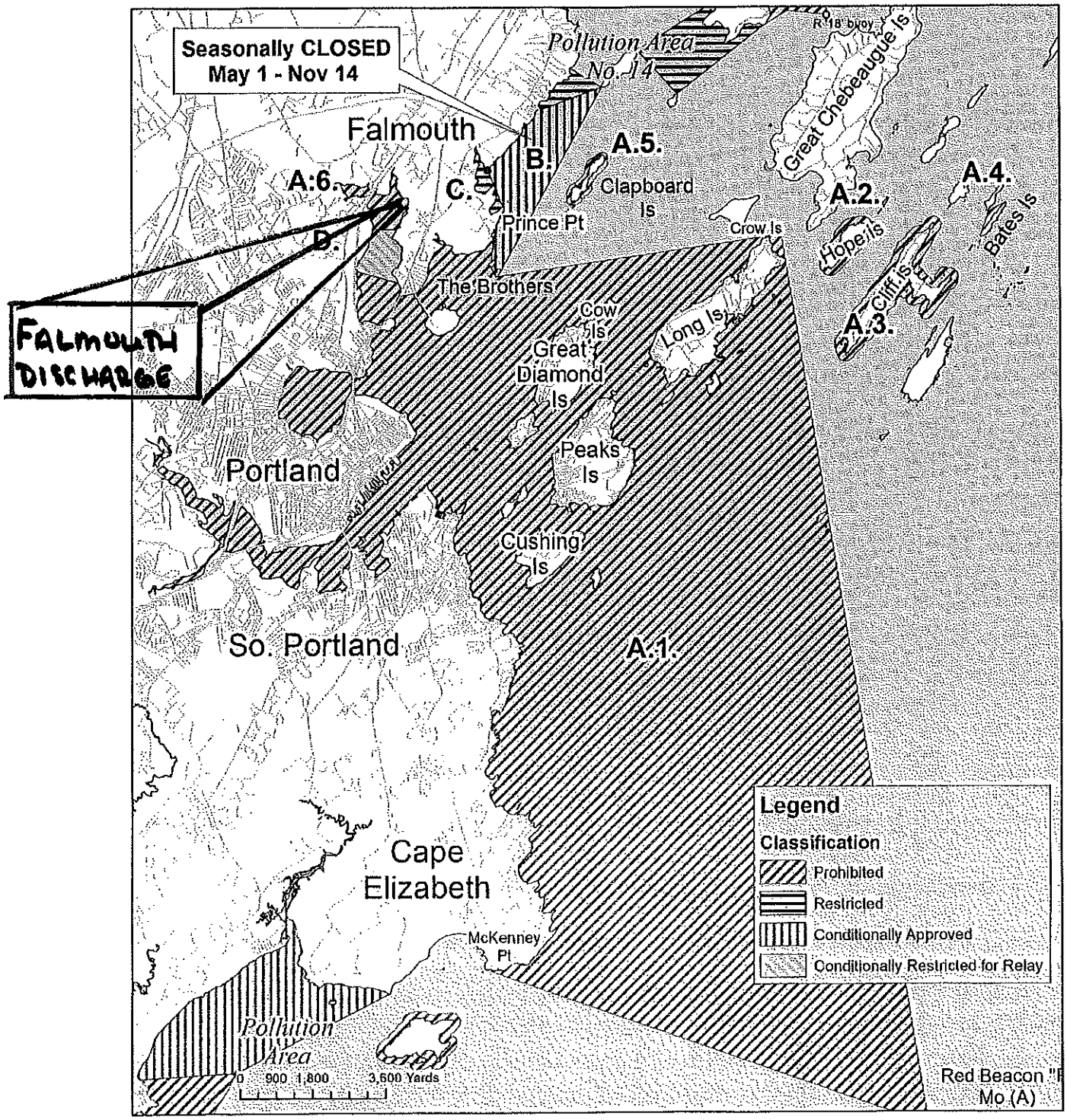


ATTACHMENT C

Maine Department of Marine Resources

Pollution Area No. 13

Western Casco Bay and Islands (Cape Elizabeth to Falmouth) March 3, 2017



FALMOUTH DISCHARGE

http://www.Maine.gov/dmr

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

ATTACHMENT D

FACILITY WET EVALUATION REPORT

Facility: FALMOUTH WWTF **Permit Number:** ME0100218 **Report Date:** 3/9/2018

Receiving Water: PRESUMPSCOT RIVER **Rapidmix:** Y

Dilution Factors: 1/4 Acute: N/A Acute: 8.300 Chronic: 11

Effluent Limits: Acute (%): 12.048 Chronic (%): 9.091 **Date range for Evaluation: From** 09/Mar/2013 **To:** 09/Mar/2018

Test Type: A_NOEL

Test Species: MYSID SHRIMP

Test Date	Result (%)	Status
04/01/2014	100.000	OK
09/08/2015	100.000	OK
03/16/2016	100.000	OK
06/08/2016	100.000	OK
10/20/2016	50.000	OK
06/05/2017	100.000	OK

Species Summary:

Test Number: 6 **RP:** 2.100 **Min Result (%):** 50.000 **RP factor (%):** 23.810 **Status:** OK

Test Type: C_NOEL

Test Species: SEA URCHIN

Test Date	Result (%)	Status
10/07/2013	100.000	OK
04/01/2014	100.000	OK
11/05/2014	100.000	OK
03/23/2015	50.000	OK
09/08/2015	100.000	OK
03/16/2016	100.000	OK
06/08/2016	100.000	OK
10/20/2016	100.000	OK
06/05/2017	100.000	OK
10/03/2017	100.000	OK

Species Summary:

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

ATTACHMENT E

PRIORITY POLLUTANT DATA SUMMARY

Date Range: 13/Mar/2013 - 13/Mar/2018

Facility Name: **FALMOUTH WWTF** NPDES: **ME0100218**

Test Date	Monthly (Flow MGD)	Daily (Flow MGD)	Total Test Number	Test # By Group M	V	BN	P	O	A	Clean	Hg
06/12/2013	1.02	1.32	1	1	0	0	0	0	0	F	0
09/17/2013	0.97	1.05	1	1	0	0	0	0	0	F	0
10/07/2013	0.69	0.75	16	10	0	0	0	6	0	F	0
12/18/2013	0.81	0.71	1	1	0	0	0	0	0	F	0
01/14/2014	1.14	1.85	1	1	0	0	0	0	0	F	0
04/01/2014	1.36	1.99	17	10	0	0	0	7	0	F	0
07/01/2014	0.88	0.76	1	1	0	0	0	0	0	F	0
10/09/2014	0.80	0.69	1	1	0	0	0	0	0	F	0
11/05/2014	0.84	0.81	17	10	0	0	0	7	0	F	0
03/23/2015	0.91	0.86	17	10	0	0	0	7	0	F	0
05/27/2015	0.77	0.83	1	1	0	0	0	0	0	F	0
09/08/2015	1.45	1.51	16	10	0	0	0	6	0	F	0

Key:

A = Acid O = Others P = Pesticides

BN = Base Neutral M = Metals V = Volatiles

PRIORITY POLLUTANT DATA SUMMARY

Date Range: 13/Mar/2013 - 13/Mar/2018

Facility Name: **FALMOUTH WWTF** NPDES: **ME0100218**

Test Date	Monthly (Flow MGD)	Daily (Flow MGD)	Total Test Number	Test # By Group M	V	BN	P	O	A	Clean	Hg
11/11/2015	0.69	0.78	1	1	0	0	0	0	0	F	0
03/16/2016	1.14	1.45	17	10	0	0	0	7	0	F	0
06/08/2016	0.79	1.00	128	13	28	46	25	5	11	F	0
10/20/2016	0.66	0.66	15	9	0	0	0	6	0	F	0
01/31/2017	1.15	0.98	1	1	0	0	0	0	0	F	0
03/21/2017	1.04	0.87	15	9	0	0	0	6	0	F	0
06/05/2017	0.89	1.01	15	9	0	0	0	6	0	F	0
08/08/2017	0.69	0.71	1	1	0	0	0	0	0	F	0
10/02/2017	0.70	0.63	15	9	0	0	0	6	0	F	0

Key:

A = Acid O = Others P = Pesticides

BN = Base Neutral M = Metals V = Volatiles

ATTACHMENT F

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAPTER 530.2(D)(4) CERTIFICATION

MEPDES#_____Facility Name_____

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

COMMENTS:

Name (printed): _____

Signature:_____Date: _____

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

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

Scheduled Toxicity Testing for the next calendar year

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

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

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

DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: March 2012 **Contact: (207) 287-2811**

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's ("DEP") Commissioner: (1) in an administrative process before the Board of Environmental Protection ("Board"); or (2) in a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S.A. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S.A. § 480-HH(1) or a general permit for a tidal energy demonstration project (38 M.R.S.A. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

This INFORMATION SHEET, in conjunction with a review of the statutory and regulatory provisions referred to herein, can help a person to understand his or her rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

The laws concerning the DEP's *Organization and Powers*, 38 M.R.S.A. §§ 341-D(4) & 346, the *Maine Administrative Procedure Act*, 5 M.R.S.A. § 11001, and the DEP's *Rules Concerning the Processing of Applications and Other Administrative Matters* ("Chapter 2"), 06-096 CMR 2 (April 1, 2003).

HOW LONG YOU HAVE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written appeal within 30 days of the date on which the Commissioner's decision was filed with the Board. Appeals filed after 30 calendar days of the date on which the Commissioner's decision was filed with the Board will be rejected.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, c/o Department of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017; faxes are acceptable for purposes of meeting the deadline when followed by the Board's receipt of mailed original documents within five (5) working days. Receipt on a particular day must be by 5:00 PM at DEP's offices in Augusta; materials received after 5:00 PM are not considered received until the following day. The person appealing a licensing decision must also send the DEP's Commissioner a copy of the appeal documents and if the person appealing is not the applicant in the license proceeding at issue the applicant must also be sent a copy of the appeal documents. All of the information listed in the next section must be submitted at the time the appeal is filed. Only the extraordinary circumstances described at the end of that section will justify evidence not in the DEP's record at the time of decision being added to the record for consideration by the Board as part of an appeal.

WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

Appeal materials must contain the following information at the time submitted:

1. *Aggrieved Status.* The appeal must explain how the person filing the appeal has standing to maintain an appeal. This requires an explanation of how the person filing the appeal may suffer a particularized injury as a result of the Commissioner's decision.
2. *The findings, conclusions or conditions objected to or believed to be in error.* Specific references and facts regarding the appellant's issues with the decision must be provided in the notice of appeal.
3. *The basis of the objections or challenge.* If possible, specific regulations, statutes or other facts should be referenced. This may include citing omissions of relevant requirements, and errors believed to have been made in interpretations, conclusions, and relevant requirements.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.
5. *All the matters to be contested.* The Board will limit its consideration to those arguments specifically raised in the written notice of appeal.
6. *Request for hearing.* The Board will hear presentations on appeals at its regularly scheduled meetings, unless a public hearing on the appeal is requested and granted. A request for public hearing on an appeal must be filed as part of the notice of appeal.
7. *New or additional evidence to be offered.* The Board may allow new or additional evidence, referred to as supplemental evidence, to be considered by the Board in an appeal only when the evidence is relevant and material and that the person seeking to add information to the record can show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process or that the evidence itself is newly discovered and could not have been presented earlier in the process. Specific requirements for additional evidence are found in Chapter 2.

Other Considerations in Appealing a Decision to the Board

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, made easily accessible by DEP. Upon request, the DEP will make the material available during normal working hours, provide space to review the file, and provide opportunity for photocopying materials. There is a charge for copies or copying services.
2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer questions regarding applicable requirements.
3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed the license normally remains in effect pending the processing of the appeal. A license holder may proceed with a project pending the outcome of an appeal but the license holder runs the risk of the decision being reversed or modified as a result of the appeal.

What to Expect Once You File a Timely Appeal with the Board

The Board will formally acknowledge receipt of an appeal, including the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials accepted by the Board Chair as supplementary evidence, and any materials submitted in response to the appeal will be sent to Board members with a recommendation from DEP staff. Persons filing appeals and interested persons are notified in advance of the date set for Board consideration of an appeal or request for public hearing. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, a license holder, and interested persons of its decision.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court, see 38 M.R.S.A. § 346(1); 06-096 CMR 2; 5 M.R.S.A. § 11001; & M.R. Civ. P 80C. A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. Failure to file a timely appeal will result in the Board's or the Commissioner's decision becoming final.

An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S.A. § 346(4).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board's Executive Analyst at (207) 287-2452 or for judicial appeals contact the court clerk's office in which your appeal will be filed.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.