



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

November 27, 2013

Ms. Annaleis Hafford
Olver Associates
P.O. Box 679
Winterport, Maine 04496
annaleis@olverassociatesinc.com

***Transmitted via electronic mail
Delivery confirmation requested***

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0101346
Maine Waste Discharge License (WDL) Application W002659-6C-F-R
Proposed Draft Permit -Town of Mount Desert-Northeast Harbor

Dear Ms. Hafford,

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

All comments on the proposed draft permit must be received in the Department of Environmental Protection office on or before the close of business on **Friday, December 27, 2013**. Failure to submit comments in a timely fashion will result in the final draft permit document being issued as drafted. Comments in writing should be submitted to my attention at the following address:

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

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-3901 FAX: (207) 287-3435
RAY BLDG., HOSPITAL ST.

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

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

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-6477 FAX: (207) 764-1507

If you have any questions regarding the matter, please feel free to call me at 215-1579.

Sincerely,

A handwritten signature in cursive script that reads "Yvette Meunier".

Yvette M. Meunier
Division of Water Quality Management
Bureau of Land and Water Quality

Enc.

cc: Clarissa Trasko, DEP/EMRO
Pam Parker, DEP/CMRO
Lori Mitchell, DEP/CMRO
Angela Brewer, DEP/CMRO Barry
Mower, DEP/CMRO
Susanne Midel, DEP/CMRO
Michelle Mason, MeDMR
Gail Wippelhauser, MeDMR
Oliver Cox, MeDMR
Environmental Reviewer, MeDIFW
Brian Pitt, EPA
Alex Rosenberg, EPA
David Pincumbe, EPA
Olga Vergara, EPA
Ivy Frignoca, CLF



DEPARTMENT ORDER

IN THE MATTER OF

TOWN OF MT. DESERT (NE HARBOR)) MAINE POLLUTANT DISCHARGE
PUBLICLY OWNED TREATMENT WORKS) ELIMINATION SYSTEM PERMIT
MOUNT DESERT, HANCOCK COUNTY, ME) AND
ME0101346) WASTE DISCHARGE LICENSE
W002659-6C-F-R APPROVAL) RENEWAL

In compliance with the *Federal Water Pollution Control Act*, Title 33 USC, §1251, *Conditions of licenses*, 38 M.R.S.A. § 414-A, and applicable regulations, the Department of Environmental Protection (Department) has considered the application of the TOWN OF MOUNT DESERT (TOWN/permittee), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

On October 10, 2013, the Department accepted for processing a renewal application from the Town for Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0101346 /Waste Discharge License (WDL) # W002659-6C-F-R, which was issued on December 29, 2008 for a five year term. The 12/29/08 MEPDES permit authorized the Town to discharge a monthly average of 0.330 million gallons per day (MGD) of secondary treated sanitary wastewater from the Town's publicly owned treatment works (POTW) to the Atlantic Ocean, Class SB, in Mount Desert, (Northeast Harbor), Maine.

PERMIT SUMMARY

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

1. Revising the minimum monitoring frequency requirements for biochemical oxygen demand (BOD₅), total suspended solids (TSS), settleable solids, and fecal coliform bacteria based on the results of facility testing;
2. Revising previous Special Condition J, now called *06-096 CMR 530(2)(D)(4) Statement for Reduced Waived Toxics Testing*, to include certification requirements for inflow/infiltration and transported wastes that may increase the toxicity of the discharge;
3. Incorporating the interim mercury limits established by the Department for this facility pursuant to *Certain deposits and discharges prohibited*, 38 M.R.S.A. § 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);
4. Revising the timing of the screening level testing for WET, analytical chemistry and priority pollutant and surveillance level testing of WET during permit cycle;

2. PERMIT SUMMARY(cont'd)

5. Establishing a daily maximum limit for WET testing for the mysid shrimp of 8.5%
6. Establishing the routine surveillance level WET testing for the mysid shrimp of (1/Year);
7. Eliminating the water quality-based concentration and mass limits for cyanide based on the results of facility testing; and
8. Eliminating the waiver for percent removal when influent strength is less than 200 mg/L.

CONCLUSIONS

Based on the findings summarized in the attached **PROPOSED DRAFT** Fact Sheet dated **November 27, 2013**, and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.
2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.
3. The provisions of the State's antidegradation policy, *Classification of Maine waters*, 38 M.R.S.A. § 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) The standards of classification of the receiving water body are met or, where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;
 - (d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification that higher water quality will be maintained and protected; and
 - (e) Where a discharge will result in lowering the existing water quality of any 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 discharges will be subject to effluent limitations that require application of best practicable treatment as defined in 38 M.R.S.A. § 414-A(1)(D).

ACTION

Based on the findings and conclusions as stated above, the Department APPROVES the above noted application of the TOWN OF MOUNT DESERT to discharge up to a monthly average flow of 0.330 MGD of secondary treated sanitary wastewater via Outfall #001A to the Atlantic Ocean, Class SB, in Mount Desert, Maine SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

1. *Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits*, revised July 1, 2002, copy attached.
2. The attached Special Conditions, including any effluent limitations and monitoring requirements.
3. This permit and the authorization to discharge become effective upon the date of signature below and expire at midnight five (5) years from the effective date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the authorization to discharge and the terms and conditions of this permit and all modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [*Maine Administrative Procedure Act*, 5 M.R.S.A. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 CMR 2(21)(A) (amended August 25, 2013)]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS _____ DAY OF _____ 2013.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____

For PATRICIA W. AHO, Commissioner

Date filed with Board of Environmental Protection _____

Date of initial receipt of application: October 10, 2013

Date of application acceptance: October 10, 2013

This Order prepared by Yvette Meunier BUREAU OF LAND & WATER QUALITY

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- The permittee is authorized to discharge secondary treated sanitary wastewater from **Outfall #001A** to the Atlantic Ocean. Such discharges are limited and must be monitored by the permittee as specified below.⁽¹⁾

Effluent Characteristic	Mass Limitations			Concentration Limitations			Minimum Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow <i>[500501]</i>	0.330 MGD <i>[03]</i>	--	Report MGD <i>[03]</i>	--	--	--	Continuous <i>[99/99]</i>	Recorder <i>[RC]</i>
Biochemical Oxygen Demand (BOD₅) <i>[003101]</i>	83 lbs/day <i>[26]</i>	124 lbs/day <i>[26]</i>	138 lbs/day <i>[26]</i>	30 mg/L <i>[19]</i>	45 mg/L <i>[19]</i>	50 mg/L <i>[19]</i>	2/Month <i>[02/30]</i>	Composite <i>[24]</i>
BOD₅ % Removal⁽²⁾ <i>[810101]</i>	--	--	--	85% <i>[23]</i>	--	--	1/Month <i>[01/30]</i>	Calculate <i>[CA]</i>
Total Suspended Solids (TSS) <i>[005301]</i>	83 lbs/day <i>[26]</i>	124 lbs/day <i>[26]</i>	138 lbs/day <i>[26]</i>	30 mg/L <i>[19]</i>	45 mg/L <i>[19]</i>	50 mg/L <i>[19]</i>	2/Month <i>[02/30]</i>	Composite <i>[24]</i>
TSS % Removal⁽²⁾ <i>[810111]</i>	--	--	--	85% <i>[23]</i>	--	--	1/Month <i>[01/30]</i>	Calculate <i>[CA]</i>
Settleable Solids <i>[005451]</i>	--	--	--	--	--	0.3 mL/L <i>[25]</i>	1/Week <i>[01/07]</i>	Grab <i>[GR]</i>
Fecal Coliform^(3,4) <i>[316161 (May 15 - Sept. 30)]</i>	--	--	--	15/100 mL <i>[13]</i>	--	50/100 mL <i>[13]</i>	2/Month <i>[02/30]</i>	Grab <i>[GR]</i>
Total Residual Chlorine^(3,5) <i>[500601]</i>	--	--	--	0.1 mg/L <i>[19]</i>	--	0.15 mg/L <i>[19]</i>	1/Day <i>[01/01]</i>	Grab <i>[GR]</i>
Total Copper <i>[010421]</i>	--	--	0.14 lbs/day <i>[26]</i>	--	--	Report ug/L <i>[28]</i>	2/Year <i>[02/YR]</i>	Composite <i>[24]</i>
pH <i>[004001]</i>	--	--	--	--	--	6.0 – 9.0 SU <i>[12]</i>	3/Week <i>[03/07]</i>	Grab <i>[GR]</i>
Mercury⁽⁶⁾ <i>[719001]</i>	--	--	--	19.7 ng/L <i>[3M]</i>	--	29.6 ng/L <i>[3M]</i>	1/Year <i>[01/YR]</i>	Grab <i>[GR]</i>

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

FOOTNOTES: See Pages 7 through 10 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

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

Effluent Characteristic	Discharge Limitations			Minimum Monitoring Requirements		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
<u>Whole Effluent Toxicity</u> ⁽¹⁾ <u>Acute – NOEL</u> <i>Mysidopsis bahia</i> [TDM3E1] (<i>Mysid shrimp</i>)	---	---	---	8.5 % [23]	1/Year [01/YR]	Composite [24]
<u>Chronic – NOEL</u> <i>Arbacia punctulata</i> [TBH3A] (<i>Sea urchin</i>)	---	---	---	Report % [23]	1/2 Years [01/2YR]	Composite [24]
Analytical chemistry ^(8,10) [51477]	---	---	---	Report ug/L [28]	1/2 Years [01/2YR]	Composite/Grab [24]

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

FOOTNOTES: See Pages 7 through 10 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

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

Effluent Characteristic	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
<u>Whole Effluent Toxicity</u> ⁽⁷⁾ <u>Acute – NOEL</u> <i>Myxidopsis bahia</i> [TDM3E1] (<i>Mysid shrimp</i>)	---	---	---	8.5 % [23]	2/Year [02/YR]	Composite [24]
<u>Chronic – NOEL</u> <i>Arbacia punctulata</i> [TBH3A] (<i>Sea urchin</i>)	---	---	---	Report % [23]	2/Year [02/YR]	Composite [24]
Analytical chemistry ^(8, 10) [51477]	---	---	---	Report ug/L [28]	1/Quarter [01/90]	Composite/Grab [24]
Priority pollutant ^(9, 10) [50008]	---	---	---	Report ug/L [28]	1/Year [01/YR]	Composite/Grab [24]

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

FOOTNOTES: See Pages 7 through 10 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

FOOTNOTES:

1. **Sampling** – All effluent monitoring must be conducted at a location following the last treatment unit in the treatment process, including dechlorination, as to be representative of end-of-pipe effluent characteristics. Any change in sampling location must be approved by the Department in writing. The permittee must conduct sampling and analysis in accordance with; a) methods approved by 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis must be analyzed by a laboratory certified by the State of Maine's Department of Health and Human Services for wastewater. Samples that are sent to a POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S.A. § 413 are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (effective 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, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report.**

All analytical test results must be reported to the Department including results which are detected below the respective reporting limits (RLs) specified by the Department or as specified by other approved test methods. See **Attachment A** of this permit for a list of the Department's current RLs. If a non-detect analytical test result is below the respective RL, the concentration result must be reported as <Y where Y is the RL achieved by the laboratory for each respective parameter. Reporting a value of <Y that is greater than an established RL or reporting an estimated value ("J" flagged) is not acceptable and will be rejected by the Department. Reporting analytical data and its use in calculations must follow established Department guidelines specified in this permit or in available Department guidance documents.

2. **Percent Removal** - The permittee must achieve a minimum of 85 percent removal of both total suspended solids and biochemical oxygen demand at all times for all flows receiving secondary treatment. The percent removal is calculated based on influent and effluent concentration values.
3. **Seasonal Limits** – Fecal coliform bacteria limits and monitoring requirements are seasonal and apply between May 15 and September 30 of each year. The Department reserves the right to require year-round disinfection to protect the health, safety and welfare of the public.
4. **Bacteria Reporting** – The monthly average limit for fecal coliform bacteria is a geometric mean limitation and results must be reported as such.

SPECIAL CONDITIONS

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

FOOTNOTES:

5. **TRC Monitoring** – Limitations and monitoring requirements are in effect any time elemental chlorine or chlorine-based compounds are utilized to disinfect the discharge(s). The permittee must utilize a USEPA-approved test method capable of bracketing the TRC limitations specified in this permitting action. Monitoring for TRC is only required when elemental chlorine or chlorine-based compounds are in use for effluent disinfection. For instances when a facility has not disinfected with chlorine-based compounds for an entire reporting period, the facility must report “NODI-9” for this parameter on the monthly DMR or “N9” if the submittal is an electronic DMR.
6. **Mercury** – The permittee must conduct all mercury sampling required by this permit or required to determine compliance with interim limitations established pursuant to 06-096 CMR 519 in accordance with the USEPA’s “clean sampling techniques” found in USEPA Method 1669, *Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels*. All mercury analysis must be conducted in accordance with USEPA Method 1631, *Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry*. See **Attachment B** for a Department report form for 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.
7. **Whole effluent toxicity (WET) testing** - Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions bracketing the critical acute and chronic dilutions of 8.6% and 1.4% respectively), which provides an estimate of toxicity in terms of No Observed Effect Level, commonly referred to as NOEL or NOEC. A-NOEL is defined as the acute no observed effect level with survival as the end point. C-NOEL is defined as the chronic no observed effect level with survival, reproduction and growth as the end points. The critical acute and chronic thresholds were derived as the mathematical inverses of the applicable acute and chronic dilution factors of 11.7:1 and 72.5:1, respectively.
 - a. **Screening-level testing** - Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee must conduct screening-level acute and chronic WET testing at a minimum frequency of 2/Year. Acute tests must be conducted on the mysid shrimp (*Mysidopsis bahia*). Chronic tests must be conducted on the sea urchin (*Arbacia punctulata*).

SPECIAL CONDITIONS

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

FOOTNOTES:

- b. **Surveillance level testing** - Beginning upon permit issuance and lasting through 24 months prior to permit expiration (Years 1, 2 & 3 of the term of the permit) and commencing again 12 months prior to permit expiration (Year 5 of the term of the permit), the permittee must initiate surveillance level acute and chronic WET testing at a minimum frequency of once per year (1/ Year) for the mysid shrimp (*Mysidopsis bahia*) and once every other year (1/ 2 Years) for the sea urchin (*Arbacia punctulata*).

WET test results must be submitted to the Department not later than the next Discharge Monitoring Report (DMR) required by the permit, provided, however, that the permittee may review the toxicity reports for up to 10 business days of their availability before submitting them. The permittee must evaluate test results being submitted and identify to the Department possible exceedences of the critical acute and chronic water quality thresholds of 4.8% and 0.3%, respectively. See **Attachment C** of this permit for WET reporting forms.

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. Environmental Protection Agency (USEPA) methods manuals.

- c. U.S. Environmental Protection Agency, 2002. Short-term Methods for Estimating the chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, Third edition, October 2002, EPA 821-R002-014.
- d. U.S. Environmental Protection Agency, 2002. Methods for Measuring the Acute Toxicity of Effluents 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 C** of this permit each time a WET test is performed.

8. **Analytical Chemistry** – Refers to those pollutants listed under "Analytical Chemistry" on the form included as **Attachment A** of this permit.
 - a. **Screening level testing** - Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee must conduct screening level analytical chemistry testing at a minimum frequency of four times per year (4/Year) in successive calendar quarters.

SPECIAL CONDITIONS

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

b. Surveillance level testing - Beginning upon permit issuance and lasting through 24 months prior to permit expiration (Years 1, 2 & 3 of the term of the permit) and commencing again 12 months prior to permit expiration (Year 5 of the term of the permit), the permittee must conduct analytical chemistry testing at a minimum frequency of once every two years. As with WET testing, testing must be conducted in a different calendar quarter of each year.

9. **Priority Pollutant Testing** – Refers to those pollutants listed under “Priority Pollutants” on the form included as **Attachment A** of this permit.

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

10. **Priority pollutant and analytical chemistry** – 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 exceedences 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 “NODI-9” monitoring not required this period.

B. NARRATIVE EFFLUENT LIMITATIONS

1. The permittee must not discharge effluent that contains a visible oil sheen, foam or floating solids at any time which would impair the usages designated for the classification of the receiving waters.
2. The permittee must not discharge effluent that contains materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the usages designated for the classification of the receiving waters.

SPECIAL CONDITIONS

B. NARRATIVE EFFLUENT LIMITATIONS (cont'd)

3. The permittee must not discharge effluent that causes visible discoloration or turbidity in the receiving waters that causes those waters to be unsuitable for the designated uses and characteristics ascribed to their class.
4. The permittee must not discharge effluent that lowers the quality of any classified body of water below such classification, or lowers the existing quality of any body of water if the existing quality is higher than the classification.

C. LIMITATIONS FOR INDUSTRIAL USERS

Pollutants introduced into the wastewater collection and treatment system by a non-domestic source (user) must not pass through or interfere with the operation of the treatment system. The permittee must conduct an Industrial Waste Survey (IWS) any time a new industrial user proposes to discharge within its jurisdiction; an existing user proposes to make a significant change in its discharge; or at an alternative minimum, once every permit cycle. 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).

D. TREATMENT PLANT OPERATOR

The treatment facility must be operated by a person holding a minimum of a **Grade II** certificate (or Registered Maine Professional Engineer) pursuant to *Sewerage Treatment Operators*, 32 M.R.S.A. §§ 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.

E. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing on October 10, 2013; 2) the terms and conditions of this permit; and 3) only from Outfall #001A. Discharges of wastewater from any other point source(s) are not authorized under this permit, and must be reported in accordance with Standard Condition B(5), *Bypasses*, of this permit.

SPECIAL CONDITIONS

F. NOTIFICATION REQUIREMENT

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

1. Any introduction of pollutants into the wastewater collection and treatment system from an indirect discharger in a primary industrial category discharging process wastewater; and
2. Any substantial change in the volume or character of pollutants being introduced into the wastewater collection and treatment system by a source introducing pollutants to the system at the time of permit issuance. For the purposes of this section, notice regarding substantial change must include information on:
 - (a) The quality and quantity of wastewater introduced to the wastewater collection and treatment system; and
 - (b) any anticipated impact caused by the change in the quantity or quality of the wastewater to be discharged from the treatment system.

G. WET WEATHER FLOW MANAGEMENT PLAN

The permittee must maintain an approved 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 plan must be to maximize the volume of wastewater receiving secondary treatment under all operating conditions. The revised 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 permittee must review their plan at least annually and record any necessary changes to keep the plan up to date. The Department may require review and update of the plan as it is determined to be necessary.

H. OPERATION & MAINTENANCE (O&M) PLAN

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

SPECIAL CONDITIONS

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

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.

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 [*EFIS Code 75305*]. See **Attachment D** of the Fact Sheet for an acceptable certification form to satisfy this Special Condition.

- (a) Changes in the number or types of non-domestic wastes contributed directly or indirectly to the wastewater treatment works that may increase the toxicity of the discharge;
- (b) Changes in the operation of the treatment works that may increase the toxicity of the discharge;
- (c) Changes in industrial manufacturing processes contributing wastewater to the treatment works that may increase the toxicity of the discharge;

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

- (d) Changes in stormwater collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge; and
- (e) Increases in the type or volume of transported (hailed) wastes accepted by the facility.

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

SPECIAL CONDITIONS

J. MONITORING AND REPORTING

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

Department of Environmental Protection
Bureau of Land and Water Quality
Division of Water Quality Management
106 Hogan Road
Bangor, Maine 04401

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

K. REOPENING OF PERMIT FOR MODIFICATIONS

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

L. SEVERABILITY

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

ATTACHMENT A

Maine Department of Environmental Protection
WET and Chemical Specific Data Report Form

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) _____ Flow for Day (MGD)⁽¹⁾ _____ Flow Avg. for Month (MGD)⁽²⁾ _____
 Acute dilution factor _____ Date Sample Collected _____ Date Sample Analyzed _____
 Chronic dilution factor _____
 Human health dilution factor _____
 Criteria type: M(arine) or F(resh) _____ M _____
 Laboratory Address _____ Telephone _____

Last Revision - April 25, 2012

MARINE AND ESTUARY VERSION

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

Please see the footnotes on the last page.

Parameter	Effluent Limits, %		Reporting Limit	Effluent Limits, ug/L		Receiving Water or Ambient	Effluent Concentration (ug/L or as noted)	Possible Exceedence (7)	
	Acute	Chronic		Acute ⁽⁶⁾	Chronic ⁽⁶⁾ Health ⁽⁶⁾			Reporting Limit Check	Chronic
WHOLE EFFLUENT TOXICITY									
Mysid Shrimp Sea Urchin									
WET CHEMISTRY									
pH (S.U.) (9)						(8)			
Total Organic Carbon (mg/L)						NA			
Total Solids (mg/L)						NA			
Total Suspended Solids (mg/L)						NA			
Salinity (ppt)									
ANALYTICAL CHEMISTRY (3)									
Also do these tests on the effluent with WET. Testing on the receiving water is optional									
TOTAL RESIDUAL CHLORINE (mg/L) (9)			0.05			NA			
AMMONIA			NA			(8)			
ALUMINUM			NA			(8)			
ARSENIC			5			(8)			
CADMIUM			1			(8)			
CHROMIUM			10			(8)			
COPPER			3			(8)			
CYANIDE			5			(8)			
LEAD			3			(8)			
NICKEL			5			(8)			
SILVER			1			(8)			
ZINC			5			(8)			

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

PRIORITY POLLUTANTS (4)	Reporting Limit		Effluent Limits		Reporting Limit Check	Possible Exceedence (7)	
	Acute (6)	Chronic (6)	Chronic (6)	Health (6)		Acute	Chronic
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-CHLOROETHOXYMETHANE	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						

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

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

Notes:

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

Comments:

ATTACHMENT B

Effluent Mercury Test Report

Name of Facility: _____ Federal Permit # ME _____
 Pipe # _____

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

SAMPLE COLLECTION INFORMATION

Sampling Date:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> <tr> <td style="text-align: center; font-size: 8px;">mm</td> <td style="text-align: center; font-size: 8px;">dd</td> <td style="text-align: center; font-size: 8px;">yy</td> </tr> </table>				mm	dd	yy	Sampling time:	_____ AM/PM
mm	dd	yy							
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 C

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

Facility Name _____ MEPDES Permit # _____
Pipe # _____

Facility Representative _____ Signature _____

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

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

Chlorinated? _____ Dechlorinated? _____

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

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

place * next to values statistically different from controls

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

Comments _____

Laboratory conducting test

Company Name _____ Company Rep. Name (Printed) _____

Mailing Address _____ Company Rep. Signature _____

City, State, ZIP _____ Company Telephone # _____

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

ATTACHMENT D



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAPTER 530.2(D)(4) CERTIFICATION

PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
Commissioner

MEPDES# _____ Facility Name _____

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

COMMENTS:

Name (printed): _____

Signature: _____ Date: _____

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

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

Scheduled Toxicity Testing for the next calendar year

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

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

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

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

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

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

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207) 760-3143

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

FACT SHEET

DATE: **NOVEMBER 27, 2013**

PERMIT NUMBER: **#ME0101346**

WASTE DISCHARGE LICENSE: **#W002659-6C-F-R**

NAME AND ADDRESS OF APPLICANT:

**TOWN OF MOUNT DESERT- NORTHEAST HARBOR
P.O. BOX 248
NORTHEAST HARBOR, MAINE 04662**

COUNTY: **HANCOCK**

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

**NORTHEAST HARBOR WASTEWATER TREATMENT FACILITY (WWTF)
18 SINCLAIR ROAD
NORTHEAST HARBOR, MAINE 04662**

RECEIVING WATER CLASSIFICATION: **ATLANTIC OCEAN / CLASS SB**

COGNIZANT OFFICIAL CONTACT INFORMATION: **MS. ANNALEIS HAFFORD,
OLVER ASSOCIATES INC (207) 223-2232
ANNALEIS@OLVERASSOCIATESINC.COM**

1. APPLICATION SUMMARY

Application – On October 10, 2013 the Department of Environmental Protection (Department) accepted as complete for processing, a renewal application from the Town of Mount Desert (Town) for Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0101346 / Maine Waste Discharge License (WDL) #W002659-5L-D-R, which was issued on December 29, 2008 for a five year term. The December 29, 2008 permit authorized the monthly average discharge of 0.330 million gallons per day (MGD) of secondary treated sanitary wastewater from the Town's publicly owned treatment works (POTW) in Northeast Harbor to the Atlantic Ocean, Class SB, in Mount Desert, (Northeast Harbor), Maine.

2. PERMIT SUMMARY

- b. Terms and Conditions: This permitting action is carrying forward all the terms and conditions of the previous permitting actions except:
1. Revising the minimum monitoring frequency requirements for biochemical oxygen demand (BOD₅), total suspended solids (TSS), settleable solids, and fecal coliform bacteria based on the results of facility testing;
 2. Revising previous Special Condition J, now called *06-096 CMR 530(2)(D)(4) Statement for Reduced Waived Toxics Testing*, to include certification requirements for inflow/infiltration and transported wastes that may increase the toxicity of the discharge;
 3. Incorporating the interim mercury limits established by the Department for this facility pursuant to *Certain deposits and discharges prohibited*, 38 M.R.S.A. § 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);
 4. Revising the timing of the screening level testing for WET, analytical chemistry and priority pollutant and surveillance level testing of WET during permit cycle;
 5. Establishes a daily maximum limit for WET testing for the mysid shrimp of 8.5%;
 6. Establishes the routine surveillance level WET testing for the mysid shrimp of (1/Year);
 7. Eliminating the water quality-based concentration and mass limits for cyanide based on the results of facility testing; and
 8. Eliminating the waiver for percent removal when influent strength is less than 200 mg/L.
- b. History: The most current relevant regulatory actions include:

August 22, 1991 – The U.S. Environmental Protection Agency (USEPA) issued National Pollutant Discharge Elimination System (NPDES) permit #ME0101346 superseding previous NPDES permits issued for this facility on 3/28/85 and on 5/2/74. This permitting action administratively consolidated the discharges from Town's Northeast Harbor facility and three other POTWs located in and operated by the Town (Somesville previously #ME0101362, Seal Harbor previously #ME0101354, and Otter Creek previously #ME0101338). Previously, the Northeast Harbor WWTF was permitted to discharge 0.330 MGD of secondary treated sanitary wastewater to the Atlantic Ocean. This permitting action, however, did not include numerical discharge flow limitations for any of the facilities; reporting of the monthly average and daily maximum discharge flow values was required.

2. PERMIT SUMMARY (cont'd)

August 27, 1997 – The USEPA issued NPDES permit #ME0101346 for the four facilities covered in the 8/22/91 NPDES permit #ME0101346: Northeast Harbor Treatment Facility (Outfall 001-A); Somesville Sewage Treatment Plant (Outfall 002-A); Seal Harbor Sewage Treatment Plant also known as Seal Harbor I (Outfall 003-A); Otter Creek Sewage Treatment Plant (Outfall 004-A); and, for the first time, the Seal Harbor II WWTF also known as the Seal Harbor Village Sewage Treatment Plant (Outfall 005-A), a 3,600 GPD sand filter overboard discharge system with no previous NPDES permit number. This permit did not include numerical discharge flow limitations for any of the facilities, and it expired on March 3, 2002. Subsequent permits issued by the Department separated the outfalls by issuing individual MEPDES permits: Northeast Harbor-ME0101346; Somesville-ME0102547; Seal Harbor I-ME0102555. The Otter Creek facility was consolidated with the Seal Harbor I facility as a result of a 2003 consent agreement. The Seal Harbor II facility flows are conveyed to the Seal Harbor I facility following a determination in 2003 by the TOWN that the facility's flows were discharging into a small stream instead of into the Atlantic Ocean. The Seal Harbor II permit was retired in December 2004.

January 12, 2001 – The Department received authorization from the USEPA to administer the NPDES permitting program in Maine, excluding areas of special interest to Maine Indian Tribes. From this point forward, the program has been referred to as the Maine Pollutant Discharge Elimination System (MEPDES) program, and MEPDES permit #ME0101343 has been utilized for this facility. On March 26, 2011, the USEPA authorized the Department to administer the MEPDES program in Indian territories of the Penobscot Nation and Passamaquoddy Tribe.

May 25, 2000 – The Department administratively modified WDL #W002659-5L-C-R by establishing interim average and maximum concentration limits for the discharge of mercury.

November 6, 2003 – The Department's Bureau of Land and Water Quality, Division of Engineering, Compliance and Technical Assistance offered the Townan Administrative Consent Agreement and Enforcement Order for violations of numeric discharge limitations that have occurred at the Northeast Harbor WWTF. The Administrative Consent Agreement and Enforcement Order was posted for a 30-day public hearing on December 4, 2003, and presented to the Board of Environmental Protection on January 15, 2004 for final approval.

April 10, 2006 – The Department issued a permit modification for Whole Effluent Toxicity testing requirements under the Surface Water Toxics Control Program.

December 29, 2008 – The Department issued WDL # W002659-5L-D-R / MEPDES #ME0101346 for a five-year term. The December 29, 2008 permit superseded previous WDLs issued on December 13, 2003, August 27, 1997, August 22, 1991, March 28, 1985 and May 2, 1974.

2. PERMIT SUMMARY (cont'd)

October 10, 2013 – Town submitted a timely and complete General Application to the Department for renewal of the December 29, 2008 MEPDES permit. The application was accepted for processing on October 10, 2013, and was assigned WDL #W002656-6C-F-R / MEPDES #ME0101346.

- c. Source Description: The Town operates the Northeast Harbor WWTF, which has been operational since 1971, to provide secondary treatment of sanitary wastewater generated by approximately 2,700 summer and 900 winter residential and commercial customers in the Northeast Harbor Village area of Mount Desert, Maine. There are no significant industrial users within the collection system, no combined sewer overflows and the facility is not authorized to receive any septage from outside sources.

The Northeast Harbor WWTF sewer collection system is approximately 7.25 miles in length, has five (5) pump stations, and is 100% separated (sanitary and storm water). The Sea Street Pump Station is equipped with a bypass that discharges through a tidal flex valve to the inner harbor section of Northeast harbor. The bypass is exposed at mean low tide. This bypass is last known to have been active prior to a 2006 upgrade. Bypass activity is visually monitored. A wood “telltale” has been placed in the pump station end of the bypass pipe. Periodic checks are made to ensure that the telltale has not moved. The Town reported that sewer pipe materials consist primarily of PVC, vitrified clay, and asbestos cement with ductile and cast iron comprising only a small percentage of the total.

A map of the Mount Desert area showing the general location of the Northeast Harbor WWTF and outfall location is included as Fact Sheet **Attachment A**.

- d. Wastewater Treatment: The wastewater treatment facility was upgraded in 1998 to accommodate increased flows which exceeded the original design. An additional upgrade is now underway to provide redundancy with the secondary clarifier, and improve other various plant process equipment.

Raw wastewater is conveyed to the facility via a 24-inch ductile iron gravity sewer. The influent is treated with sodium hydroxide (caustic soda) for pH adjustment and is then conveyed through a manual bar rack and/or mechanical grinder (comminutor) for influent screening before continuing to a wet well consisting of two basins with a combined working volume of 2,900 gallons. From there, the flow is pumped to one of two available 166,000-gallon aeration basins for extended diffused aeration. Only one aeration basin is online at any given time so that the other can be used for high flow management and/or aerobic treatment of sludge during winter months. Wastewater is then conveyed to a 45-foot diameter circular secondary clarifier with a volume of approximately 162,000 gallons, and then to a 13,500-gallon baffled chlorine contact chamber for seasonal disinfection using sodium hypochlorite and dechlorination using sodium bisulfite. The contact chamber provides approximately 15 minutes of detention at the peak flow rate. Effluent flow is measured by a V-notch weir installed in the chlorine contact tank.

2. PERMIT SUMMARY (cont'd)

Treated effluent is conveyed to the Atlantic Ocean for discharge via a 16-inch diameter outfall pipe that extends 540 feet beyond the low tide mark at a depth of approximately 5.6 feet during mean low tide. The end of the pipe is fitted with a diffuser consisting of seven 2-inch ports and one 6-inch outlet port to enhance mixing of the effluent with the receiving waters.

Sludge handling equipment at the facility includes a 1,100-gallon scum tank, a 44,000-gallon aerobic digester and two 15-horsepower return sludge pumps. Scum from the secondary clarifier is skimmed to the scum tank. Settled materials from the clarifier and scum are subsequently pumped to the aerobic digester for settling and decanting. Return activated sludge is also pumped directly back to the aeration basins. The digester supernatant is sent back to the aeration basins. Sludge is hauled to the Bar Harbor WWTF for dewatering and then to the Soil Prep in Plymouth, Maine, for final disposal. A schematic of the wastewater treatment process is included as Fact Sheet **Attachment B**.

3. CONDITIONS OF PERMIT

Conditions of licenses, 38 M.R.S.A. § 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, 38 M.R.S.A. § 420 and 06-096 CMR 530 require the regulation of toxic substances not to exceed levels set forth in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584 (last amended July 29, 2012), and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

4. RECEIVING WATER QUALITY STANDARDS

Classifications of estuarine and marine waters, 38 M.R.S.A. § 469 classifies the Atlantic Ocean at Mount Desert, (Northeast Harbor), as Class SB waters. *Standards for classification of estuarine and marine waters*, 38 M.R.S.A. § 465-B(3) describes the standards for Class SB waters.

5. RECEIVING WATER QUALITY CONDITIONS

The *2010 Integrated Water Quality Report* published by the Department pursuant to Section 305(b) of the Federal Water Pollution Control Act lists the Atlantic Ocean at the point of discharge in a table entitled “*Category 2: Estuarine And Marine Waters Attaining Some Designated Uses – Insufficient Information for Other Uses.*” Attainment in this context is in regard to the designated use of harvesting of shellfish. The Maine Department of Marine Resources shellfish harvesting Area #44 (Southwest Harbor, Somes Sound, Somesville, Northeast Harbor, and the Cranberry Isles) is closed to the presence of overboard discharges and the Northeast Harbor WWTP. Compliance with the fecal coliform bacteria limits in this permitting action ensures that the discharge from the Northeast Harbor WWTF will not cause or contribute to the shellfish harvesting closure. The shellfish closure area is identified on the map included as Fact Sheet **Attachment C**.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

- a. Flow: The previous permitting action established, and this permitting action is carrying forward, a monthly average discharge flow limit of 0.330 MGD based on the design capacity for the treatment facility, and a daily maximum discharge flow reporting requirement. The facility was upgraded in 1998 to accommodate a maximum sustained daily flow of 0.650 MGD and a peak hourly flow of 1.30 MGD, although the Town has not requested an increase in the discharge flow limit.

The Department reviewed 51 Discharge Monitoring Reports (DMRs) that were submitted for the period January 2009 – March 2013. It is noted that monthly average flow limits were exceeded during March 2010 (0.37 MGD) and in March 2011 (0.41 MGD). A review of data indicates the following:

Flow

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly Average	0.330	0.10 – 0.41	0.219
Daily Maximum	Report	0.19 – 1.23	0.586

- b. Dilution Factors - 06-096 CMR 530(4)(A)(2)(a) states that, “For discharges to the ocean, dilution must be calculated as near-field or initial dilution, or that dilution available as the effluent plume rises from the point of discharge to its trapping level, at mean low water level and slack tide for the acute exposure analysis, and at mean tide for the chronic exposure analysis using appropriate models determined by the Department such as MERGE, CORMIX or another predictive model.” With a permitted flow of 0.0330 MGD and based on the location and configuration of the outfall structure, the Department has established dilution factors as follows:

Acute = 11.7:1 Chronic = 72.5:1 Harmonic Mean⁽¹⁾ = 217.5:1

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.

- c. Biochemical Oxygen Demand (BOD₅) and Total Suspended Solids (TSS): The previous permitting action established, and this permitting action is carrying forward, monthly average and weekly average technology-based concentration limits of 30 mg/L and 45 mg/L, respectively, for BOD₅ and TSS based on the secondary treatment requirements specified at *Effluent Guidelines and Standards*, 06-096 CMR 525(3)(III) (effective January 12, 2001), and a daily maximum concentration limit of 50 mg/L, which is based on a Department best professional judgment (BPJ) of best practicable treatment (BPT) for secondary treated wastewater. The technology-based monthly average, weekly average and daily maximum mass

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

limits of 83 lbs./day, 124 lbs./day and 138 lbs./day, respectively, established in the previous permitting action for BOD₅ and TSS are based on the monthly average flow design criterion of 0.330 MGD and the applicable concentration limits, and are also being carried forward in this permitting action.

This permitting action is carrying forward a requirement for a minimum of 85% removal of BOD₅ & TSS pursuant to 06-096 CMR 525(3)(III)(a&b)(3). The permittee has not demonstrated that it qualifies for special considerations pursuant to 06-096 CMR 525(3)(IV). Therefore, this permitting action is eliminating the waiver from the 85% removal requirement provided in the previous permitting action when influent concentration is less than 200 mg/L.

The Department reviewed 39 DMRs that were submitted for the period January 2009 – March 2013. A review of data indicates the following:

BOD₅ Mass

Value	Limit (lbs/day)	Range (lbs/day)	Average (lbs/day)
Monthly Average	83	1 – 14	6.580
Weekly Average	124	1 – 54	12
Daily Maximum	138	2 – 54	12

BOD₅ Concentration

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	2 – 7	3.64
Weekly Average	45	2 – 12	5
Daily Maximum	50	2 – 12	5.059

TSS Mass

Value	Limit (lbs/day)	Range (lbs/day)	Average (lbs/day)
Monthly Average	83	3 – 18	8.682
Weekly Average	124	3 – 64	16
Daily Maximum	138	4 – 64	16.978

TSS Concentration

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	2 – 8	4.65
Weekly Average	45	2 – 14	7
Daily Maximum	50	2 – 14	6.824

On April 19, 1996, the USEPA issued a guidance document entitled, “*Interim Guidance for Performance Based Reductions of NPDES Permit Monitoring Frequencies*” (USEPA 1996) as the basis for determining reduced monitoring frequencies. The guidance document was issued to reduce unnecessary reporting while at the same time maintaining a high level of environmental protection for facilities that have a good compliance record and pollutant discharges at levels below permit requirements. Monitoring requirements are not considered

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

effluent limitations under section 402(o) of the Clean Water Act and therefore, anti-backsliding prohibitions would not be triggered by reductions in monitoring frequencies.

The USEPA guidance indicates “...*the basic premise underlying a performance-based reduction approach is that maintaining a low average discharge relative to the permit limits results in a low probability of the occurrence of a violation for a wide range of sampling frequencies.*” The monitoring frequency reductions in USEPA’s guidance were designed to maintain approximately the same level of reported violations as that experienced with the existing baseline sampling frequency in the permit. To establish baseline performance the long term average (LTA) discharge rate for each parameter is calculated using the most recent two-year data set of monthly average effluent data representative of current operating conditions. The LTA/permit limit ratio is calculated and then compared to the matrix in Table I of USEPA’s guidance to determine the potential monitoring frequency reduction. It is noted Table I of USEPA’s guidance was derived from a probability table that used an 80% effluent variability or coefficient of variation (cv). The permitting authority can take into consideration further reductions in the monitoring frequencies if the actual cv for the facility is significantly lower than the default 80% utilized by the USEPA in Table I.

In addition to the parameter-by-parameter performance history via the statistical evaluation cited above, the USEPA recommends the permitting authority take into consideration the facility enforcement history and the parameter-by-parameter compliance history and factors specific to the State or facility. If the facility has already been given monitoring reductions due to superior performance, the baseline may be a previous permit.

The USEPA’s 1996 guidance recommends evaluation of the most current two-years of effluent data for a parameter. A review of the monitoring data for BOD₅ and TSS indicate the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as follows:

BOD₅

Long term average = 6.58 lbs./day
Monthly average limit = 83 lbs./day
Current monitoring frequency = 1/Week

$$\text{Ratio} = \frac{6.58 \text{ lbs./day}}{83 \text{ lbs./day}} = 8\%$$

According to Table I of the USEPA guidance, a 1/Week monitoring requirement can be reduced to 1/2 Months. However, the Department has determined that a reduction to 2/Month testing for fecal coliform bacteria is consistent with our analysis of the data and BPJ. Therefore, the monitoring frequency for BOD₅ has been reduced to 2/Month in this permitting action.

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

TSS

Long term average = 8.682 lbs./day
 Monthly average limit = 83 lbs./day
 Current monitoring frequency = 1/Week

$$\text{Ratio} = \frac{8.682 \text{ lbs./day}}{83 \text{ lbs./day}} = 10\%$$

According to Table I of the EPA Guidance, a 1/Week monitoring requirement can be reduced to 1/2 Months. However, the Department has determined that a reduction to 2/Month testing for fecal coliform bacteria is consistent with our analysis of the data and BPJ. Therefore, the monitoring frequency for TSS has been reduced to 2/Month in this permitting action.

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

The Department reviewed 51 DMRs that were submitted for the period January 2009 – March 2013. A review of data indicates the following:

Settleable Solids

Value	Limit (mL/L)	Range (mL/L)	Average (mL/L)
Daily Maximum	0.3	0.1 – 0.3	0.106

A review of the monitoring data for settleable solids indicates the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as follows:

Long term average = 0.106 ml/L
 Daily maximum limit = 0.3 ml/L
 Current monitoring frequency = 3/Week

$$\text{Ratio} = \frac{0.106 \text{ ml/L}}{0.3 \text{ ml/L}} = 35\%$$

According to Table I of the USEPA guidance, a 3/Week monitoring requirement can be reduced to 1/Week. Therefore, the monitoring frequency for settleable solids has been reduced to 1/Week in this permitting action.

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

- e. Fecal coliform bacteria – The previous permitting action established, and this permitting action is carrying forward, seasonal monthly average and daily maximum concentration limits of 15 colonies/100 ml and 50 colonies/100 ml, respectively, for fecal coliform bacteria, which are consistent with the National Shellfish Sanitation Program. Bacteria limits are seasonal and apply between May 15 and September 30 of each year, however, the Department reserves the right to require year-round disinfection to protect the health, safety and welfare of the public.

The Department reviewed 20 DMRs that were submitted for the period January 2010 – March 2013. A review of data indicates the following:

Fecal Coliform Bacteria

Value	Limit (col/100 ml)	Range (col/100 ml)	Mean (col/100 ml)
Monthly Average	15	1 – 4	1.36
Daily Maximum	50	1 – 13	2.8

A review of the monitoring data for total coliform bacteria indicates the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as follows:

Long term average = 1.36 col/100 ml
 Monthly average limit = 15 col/100 ml
 Current monitoring frequency = 1/Week

$$\text{Ratio} = \frac{1.36 \text{ col/100 ml}}{15 \text{ col/100 ml}} = 9\%$$

According to Table I of the EPA Guidance, a 1/Week monitoring requirement can be reduced to 1/ 2 Months. However, the Department has determined that a reduction to 2/Month testing for fecal coliform bacteria is consistent with our analysis of the data and BPJ. Therefore, the Department is setting the monitoring frequency for fecal coliform bacteria to 2/Month in this permitting action.

- f. Total Residual Chlorine (TRC) – The previous permitting action established technology-based monthly average and water quality-based daily maximum concentration limits of 0.1 mg/L and 0.15 mg/L, respectively, for TRC. Limitations on TRC are specified to ensure that ambient water quality standards are maintained and that BPT technology is being applied to the discharge. Department permitting actions impose the more stringent of either a water quality-based or BPT-based limit. With dilution factors as determined above, end-of-pipe (EOP) water quality-based concentration thresholds for TRC may be calculated as follows:

Acute (A) Criterion	Chronic (C) Criterion	A & C Dilution Factors	Calculated	
			Acute Limit	Chronic Limit
0.013 mg/L	0.0075 mg/L	11.7:1 (A) 72.5:1 (C)	0.15 mg/L	0.54 mg/L

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

The Department has established a daily maximum BPT limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine-based compounds. For facilities that need to dechlorinate the discharge in order to meet water quality-based thresholds, the Department has established daily maximum and monthly average BPT limits of 0.3 mg/L and 0.1 mg/L, respectively. The Town dechlorinates the effluent prior to discharge in order to achieve compliance with the water quality-based thresholds. The calculated acute water quality-based threshold of 0.15 mg/L is more stringent than the daily maximum technology-based standard of 0.3 mg/L and is therefore being carried forward in this permitting action. The monthly average technology-based standard of 0.1 mg/L is more stringent than the calculated chronic water quality-based threshold of 0.54 mg/L and is therefore being carried forward in this permitting action.

The Department reviewed 20 DMRs that were submitted for the period January 2009 – March 2013. A review of data indicates the following:

Total Residual Chlorine

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	0.15	0.05 – 0.14	0.094
Monthly Average	0.1	0.04 – 0.06	0.05

A review of the monitoring data for TRC indicates the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as follows:

Long term average = 0.1 mg/L
 Monthly average limit = 0.15 mg/L
 Current monitoring frequency = 1/Day

$$\text{Ratio} = \frac{0.1 \text{ mg/L}}{0.15 \text{ mg/L}} = 67\%$$

According to Table I of the EPA Guidance, a 1/Day monitoring requirement cannot be further reduced. Therefore, previous monitoring frequency for TRC is being carried forward in this permitting action.

- g. **pH** – The previous permitting action established, and this permitting action is carrying forward, technology-based pH limit of 6.0 – 9.0 standard units (SU), which is based on 06-096 CMR 525(3)(III).

The Department reviewed 39 DMRs that were submitted for the period January 2010 – March 2013. A review of data indicates the following:

Value	Limit (SU)	Range (SU)	Mean (mg/L)
Daily Maximum	6.0 – 9.0	6.0 – 8.4	N/A

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

In consideration of the compliance history with pH, this permitting action is carrying forward the minimum monitoring frequency requirement of three times per week.

- h. Mercury: Pursuant to *Certain deposits and discharges prohibited*, 38 M.R.S.A. § 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 thereby administratively modifying WDL #W002659-5L-D-R by establishing an interim monthly average and daily maximum effluent concentration limits of 9.1 parts per trillion (ppt) and 13.7 ppt, respectively, and a minimum monitoring frequency requirement of two (2) 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 February 2008 through the May 2012 indicates the permittee has been in compliance with the interim limits for mercury as results have been reported as follows;

Mercury

Value	Limit (ng/L)	Range (ng/L)	Mean (ng/L)
Average	9.1	1.2 – 8.3	2.9
Daily Maximum	13.7		

Pursuant to 38 M.R.S.A. § 420(1-B)(F), the Department issued a minor revision on February 6, 2012 to the December 29, 2008 permit thereby revising the minimum monitoring frequency requirement from twice per year to once per year given the permittee has maintained at least 5 years of mercury testing data. In fact, the permittee has been monitoring mercury at a frequency of 2/Year since September 1999 or 13 years.

Pursuant to 38 M.R.S.A. §420(1-B)(F), this permitting action is carrying forward the 1/Year monitoring frequency established in the February 6, 2012, permit modification.

Whole Effluent Toxicity (WET), Priority Pollutant, and Analytical Chemistry Testing

38 M.R.S.A. § 414-A and 38 M.R.S.A. § 420 prohibit the discharge of effluents containing substances in amounts that would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA. 06-096 CMR 530 sets forth effluent monitoring requirements and procedures to establish safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected and narrative and numeric water quality criteria are met. 06-096 CMR 584 sets forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

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

WET, priority pollutant and analytical chemistry testing, as required by 06-096 CMR 530, is included in this permit in order to characterize the effluent. WET monitoring is required to assess and protect against impacts upon water quality and designated uses caused by the aggregate effect of the discharge on specific aquatic organisms. Acute and chronic WET tests are performed on mysid shrimp (*Mysidopsis bahia*) and sea urchin (*Arbacia punctulata*). Chemical-specific monitoring is required to assess the levels of individual toxic pollutants in the discharge, comparing each pollutant to acute, chronic, and human health water quality criteria. Priority pollutants refers to those pollutants listed under "Priority Pollutants" on the form included as **Attachment A** of the permit. Analytical chemistry refers to those pollutants listed under "Analytical Chemistry" on the form included as **Attachment A** of the permit.

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

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

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

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

06-096 CMR 530(2)(B) categorizes dischargers subject to the toxics rule into one of four levels (Levels I through IV). Level II dischargers are those dischargers having a chronic dilution factor of greater than or equal to 20:1 but less than 100:1. The chronic dilution factor associated with the discharge from MDT is 72.5:1; therefore, this facility is considered a Level II facility for purposes of toxics testing.

06-096 CMR 530(2)(D) specifies **default** WET, priority pollutant, and analytical chemistry test schedules for Level II dischargers as follows:

Default Surveillance level testing – Beginning upon issuance of this permit modification 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).

Level II facilities must conduct one WET tests and two Analytical chemistry test during surveillance level testing.

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

Default 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.

Level II facilities must conduct two WET tests, four Analytical chemistry tests and one Priority pollutant during screening level testing.

06-096 CMR 530(3)(C) states in part;

If these data indicate that the discharge is causing an exceedence of applicable water quality criteria, then: (1) the licensee must, within 45 days of becoming aware of an exceedence, submit a TRE plan for review and approval and implement the TRE after Department approval; and (2) the Department must, within 180 days of the Department's written approval of the TRE plan, modify the waste discharge license to specify effluent limits and monitoring requirements necessary to control the level of pollutants and meet receiving water classification standards.

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

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

On July 18, 2013, the Department conducted a statistical evaluation on the most recent 60 months of WET test results on file with the Department for the Town in accordance with the statistical approach outlined above. The 7/18/13 statistical evaluation indicates the discharge from the permittee's wastewater treatment facility has demonstrated a reasonable potential to exceed the critical acute ambient water quality thresholds of 8.5% for the mysid shrimp. See **Attachment D** of this Fact Sheet for a summary of the WET test results.

This permitting action maintains the established the routine screening level testing for the mysid shrimp and the sea urchin of (2/Year).

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

Based on the Department's findings this permitting action establishes the routine surveillance level testing for the mysid shrimp of (1/Year).

06-096 CMR 530(2)(D)(3(c)) states in part, *Dischargers in Levels II* states "Dischargers in Level II may reduce surveillance testing to one WET or specific chemical series ever other year provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedence as calculated pursuant to section 3E.

Based on the results of the 7/18/13 statistical evaluation, the permitting action maintains the previously established reduced surveillance level testing on the sea urchin of (1/2Years).

06-096 CMR 530 (2)(D)(4) states:

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.

A Special Condition of the previous permit established, *Surface Waters Toxics Control Program Statement For Reduced Toxics Testing*, pursuant to 06-096 CMR 530(2)(D)(4). This permitting action is revising previous Special Condition J to include certification requirements for inflow/infiltration and transported wastes that may increase the toxicity of the discharge. The annual certification statement requirement is being carried forward in this permitting action.

j. Analytical Chemistry & Priority Pollutant Testing Evaluation:

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

The background concentration of specific chemicals must be included in all calculations using the following procedures. The Department may publish and periodically update a list of default background concentrations for specific pollutants on a regional, watershed or statewide basis. In doing so, the Department must use data collected

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

from reference sites that are measured at points not significantly affected by point and non-point discharges and best calculated to accurately represent ambient water quality conditions. The Department must use the same general methods as those in section 4(D) to determine background concentrations. For pollutants not listed by the Department, an assumed concentration of 10% of the applicable water quality criteria must be used in calculations.

The Department has limited information on the background levels of metals in the water column in the Atlantic Ocean in the vicinity of the permittee's outfall. Therefore, a default background concentration of 10% of the applicable water quality criteria is being used in the calculations of this permitting action.

06-096 CMR 530(4)(E) states,

In allocating assimilative capacity for toxic pollutants, the Department must hold a portion of the total capacity in an unallocated reserve to allow for new or changed discharges and non-point source contributions. The unallocated reserve must be reviewed and restored as necessary at intervals of not more than five years. The water quality reserve must be not less than 15% of the total assimilative quantity.

Therefore, the Department is reserving 15% of the applicable water quality criteria in the calculations of this permitting action.

06-096 CMR 530(3)(E) states,

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

06-096 CMR 530(3)(D) states,

Where the need for effluent limits has been determined, limits derived from acute water quality criteria must be expressed as daily maximum values. Limits derived from chronic or human health criteria must be expressed as monthly average values.

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

06-096 CMR 530(4)(F) states, in part:

Where there is more than one discharge into the same fresh or estuarine receiving water or watershed, the Department must consider the cumulative effects of those discharges when determining the need for and establishment of the level of effluent limits. The Department must calculate the total allowable discharge quantity for specific pollutants, less the water quality reserve and background concentration, necessary to achieve or maintain water quality criteria at all points of discharge, and in the entire watershed. The total allowable discharge quantity for pollutants must be allocated consistent with the following principles.

Evaluations must be done for individual pollutants of concern in each watershed or segment to assure that water quality criteria are met at all points in the watershed and, if appropriate, within tributaries of a larger river.

The total assimilative capacity, less the water quality reserve and background concentration, may be allocated among the discharges according to the past discharge quantities for each as a percentage of the total quantity of discharges, or another comparable method appropriate for a specific situation and pollutant. Past discharges of pollutants must be determined using the average concentration discharged during the past five years and the facility's licensed flow.

The amount of allowable discharge quantity may be no more than the past discharge quantity calculated using the statistical approach referred to in section 3(E) [Section 3.3.2 and Table 3-2 of USEPA's "Technical Support Document for Water Quality-Based Toxics Control"] of the rule, but in no event may allocations cause the water quality reserve amount to fall below the minimum referred to in 4(E) [15% of the total assimilative capacity]. Any difference between the total allowable discharge quantity and that allocated to existing dischargers must be added to the reserve.

On July 19, 2013, the Department conducted a statistical evaluation of the most recent 60 months of chemical-specific test results on file with the Department. **The evaluation indicates that the discharge has a reasonable potential to exceed the acute ambient water quality criterion (AWQC) threshold for copper.** See **Attachment E** of this Fact Sheet for a facility chemical data report.

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

The discharge does not exceed or demonstrate a reasonable potential to exceed the critical AWQC for any other parameters tested, including the cyanide, which was limited in the previous permit. **Therefore, this permitting action is eliminating the effluent limitations for cyanide.** With the exception of copper, the permittee qualifies for the waiver in priority pollutant and analytical chemistry testing. Therefore, this permitting action is establishing surveillance-level analytical testing requirements as follows:

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

Surveillance-level testing

Level	Priority pollutant testing	Analytical chemistry
II	None required	1/2 year

06-096 CMR 530 (2)(D)(1) specifies that screening-level testing is to be established 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 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:

Screening-level testing

Level	Priority pollutant testing	Analytical chemistry
II	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 I, *Chapter 530 (2)(D)(4) Certification*, of this permitting action requires the permittee to file an annual certification with the Department.

The Department has prepared guidance that establishes protocols for establishing waste load allocations. See **Attachment F** of this Fact Sheet. The guidance states that the most protective of water quality becomes the facility's allocation. According to the 7/19/13 statistical evaluation, copper is to be limited based on the individual allocation method.

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

In the individual allocation, the Department continues to utilize the formula it has used in permitting actions since October 2005 taking into consideration background (10% of AWQC) and a reserve (15% of AWQC). The formula is as follows:

$$\text{EOP concentration threshold} = [\text{Dilution factor} \times 0.75 \times \text{AWQC}] + [0.25 \times \text{AWQC}]$$

$$\text{Mass limit} = (\text{EOP concentration in mg/L}) \times (8.34 \text{ lbs/gal}) \times (\text{permit flow limit in MGD})$$

- i. Total Copper: The previous permit established water quality-based daily maximum concentration and mass limits for total copper based on a 10/1/08 statistical evaluation of effluent data which indicted the effluent had a reasonable potential to exceed the acute and chronic AWQC for copper. The 7/19/13 statistical evaluation of effluent data indicates that the discharge has reasonable potential to exceed the acute AWQC only. Therefore, this permitting action is carrying forward the daily maximum mass limitation of 0.10 lbs./day for copper, as calculated below. This permitting action is eliminating the daily maximum concentration limit for copper based on the provisions at 38 M.R.S.A. § 464(4)(K), which provides that “[u]nless otherwise required by an applicable effluent limitation guideline adopted by the department, any limitations for metals in a waste discharge license may be expressed only as mass-based limits.” This permitting action is establishing a daily maximum concentration reporting requirement for copper.

Copper (Total):

$$\text{Acute AWQC} = 5.78 \text{ ug/L}$$

$$\text{Acute dilution factor} = 11.7:1$$

$$\text{EOP concentration} = [\text{Dilution factor} \times 0.75 \times \text{AWQC}] + [0.25 \times \text{AWQC}]$$

$$\text{EOP} = [11.7 \times 0.75 \times 5.78 \text{ ug/L}] + [0.25 \times 5.78 \text{ ug/L}] = 52.2 \text{ ug/L}$$

Based on a permitted flow of 0.330 MGD, the EOP mass limit is calculated as follows:

$$\text{Daily Maximum Mass Limit: } \frac{(52.2 \text{ ug/L})(8.34)(0.330 \text{ MGD})}{1,000 \text{ ug/mg}} = 0.14 \text{ lbs/day}$$

Based on the timing, severity and frequency of occurrences of the exceedences or reasonable potential to exceed applicable critical water quality thresholds, this permitting action is making a best professional judgment to carry forward the monitoring frequencies for total copper and at the default screening level frequency of 1/Quarter specified in Chapter 530.

¹ Note: 1 mg/L = 1,000 µg/L

7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

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

8. PUBLIC COMMENTS

Public notice of this application was made in the *Mount Desert Islander* newspaper on or about October 10, 2013. The Department receives public comments on an application until the date a final agency action is taken on the application. Those persons receiving copies of draft permits must have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to *Application Processing Procedures for Waste Discharge Licenses*, 06-096 CMR 522 (effective January 12, 2001).

9. DEPARTMENT CONTACTS

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

Yvette Meunier
Division of Water Quality Management
Bureau of Land & Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 215-1579
yvette.meunier@maine.gov

10. RESPONSE TO COMMENTS

Reserved until the end of the public comment period.

ATTACHMENT A

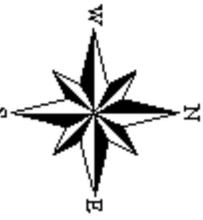


Legend

- Lakes
- Town Road
- State-aided Highway



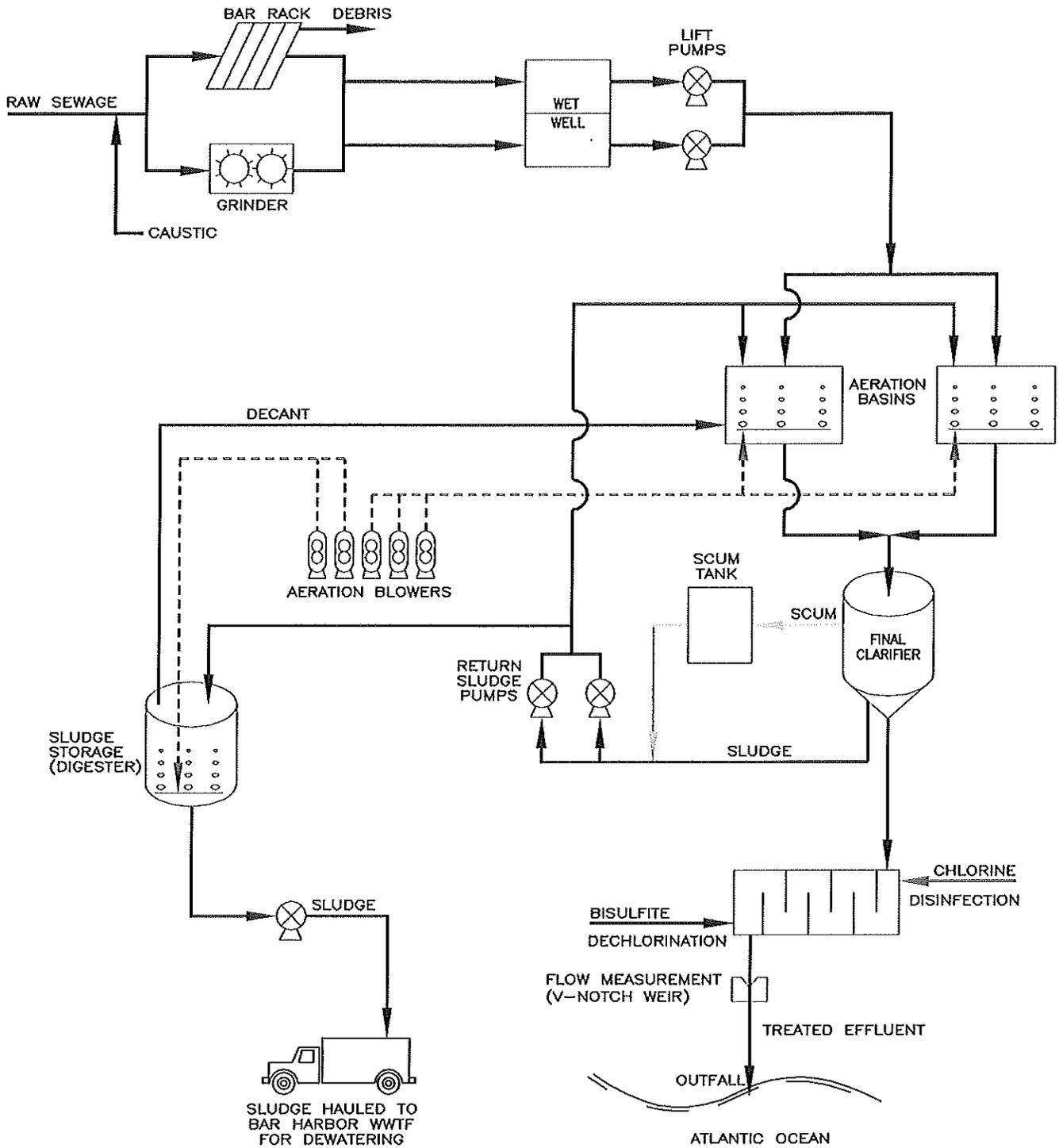
Mount Desert, Northeast Harbor POTW



Map Created by Maine DEP
July 23, 2013



ATTACHMENT B



NORTHEAST HARBOR WASTEWATER
TREATMENT FACILITY
TOWN OF MOUNT DESERT, MAINE
EXISTING PROCESS FLOW SCHEMATIC

FIGURE 1

OLVER ASSOCIATES INC.

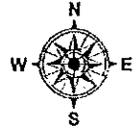
ENVIRONMENTAL ENGINEERS
290 MAIN STREET WINTERPORT, MAINE

ATTACHMENT C

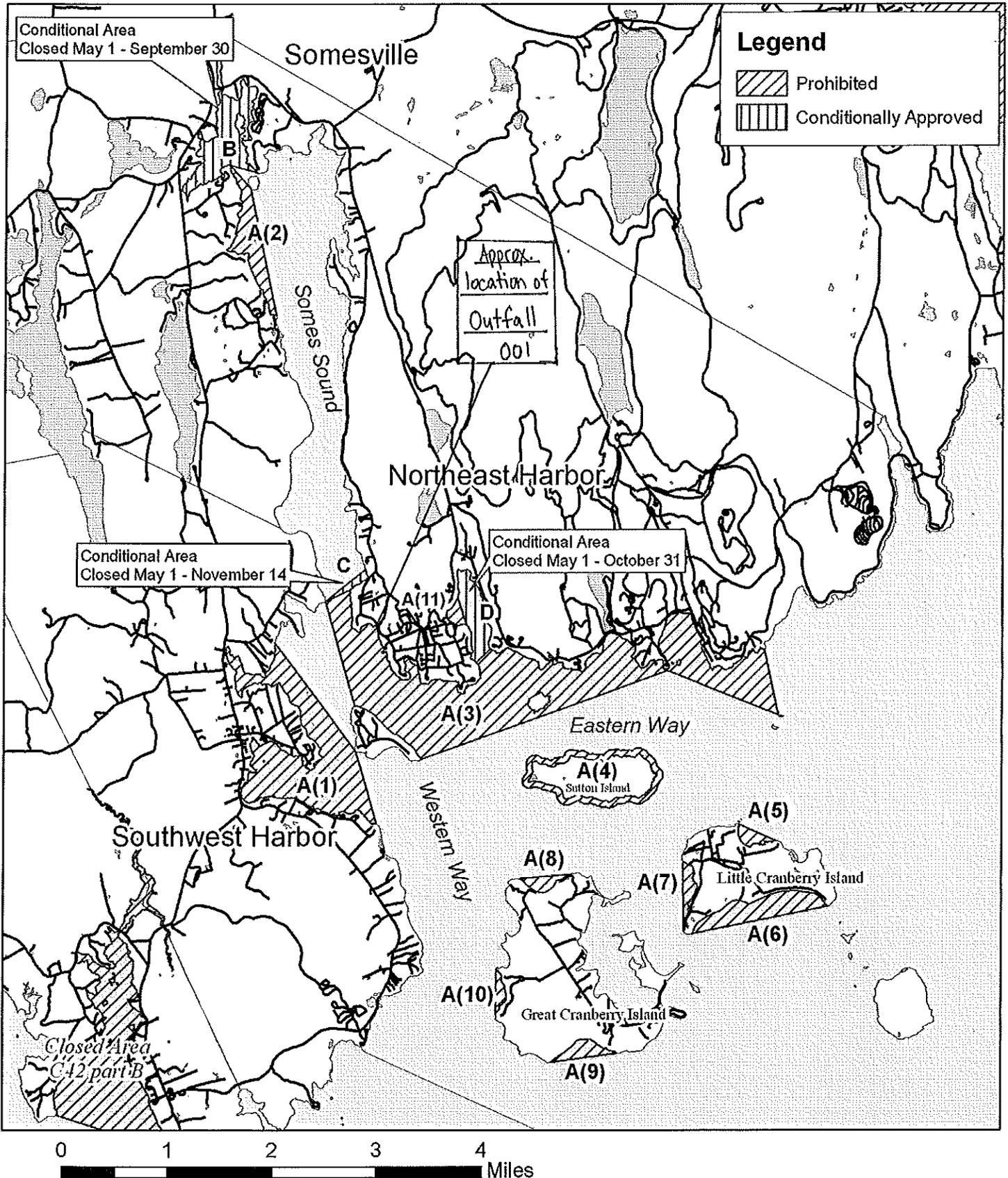


Maine Department of Marine Resources

Pollution Closed Area No. 44



Southwest Harbor, Some Sound, Somesville, Northeast Harbor, and the Cranberry Isles
(Southwest Harbor, Mount Desert, and Cranberry Isles) 03/18/09



ATTACHMENT D

7/18/2013

WET TEST REPORT
Data for tests conducted for the period
18/Jul/2008 - 18/Jul/2013



NORTHEAST HARBOR

NPDES= ME010134

Effluent Limit: Acute (%) = 8.547

Chronic (%) = 1.379

Species	Test	Percent	Sample date	Critical %	Exception	RP
MYSID SHRIMP	A_NOEL	100	10/13/2008	8.547		
MYSID SHRIMP	A_NOEL	100	03/15/2010	8.547		
MYSID SHRIMP	A_NOEL	100	04/30/2012	8.547		
MYSID SHRIMP	A_NOEL	10	03/17/2013	8.547		
SEA URCHIN	C_NOEL	100	10/13/2008	1.379		
SEA URCHIN	C_NOEL	10	03/15/2010	1.379		
SEA URCHIN	C_NOEL	100	04/30/2012	1.379		
SEA URCHIN	C_NOEL	100	04/30/2012	1.379		
SEA URCHIN	C_NOEL	5	03/17/2013	1.379		

ATTACHMENT E

Facility name: **NORTHEAST HARBOR**Permit Number: **ME0101346**

Parameter:	Test date	Result (ug/l)	Lsthan
1,1,1-TRICHLOROETHANE	03/17/2013	1.000	Y
Parameter: 1,1,2,2-TETRACHLOROETHANE	Test date	Result (ug/l)	Lsthan
	03/17/2013	1.000	Y
Parameter: 1,1,2-TRICHLOROETHANE	Test date	Result (ug/l)	Lsthan
	03/17/2013	1.000	Y
Parameter: 1,1-DICHLOROETHANE	Test date	Result (ug/l)	Lsthan
	03/17/2013	1.000	Y
Parameter: 1,1-DICHLOROETHYLENE	Test date	Result (ug/l)	Lsthan
	03/17/2013	1.000	Y
Parameter: 1,2-(O)DICHLOROBENZENE	Test date	Result (ug/l)	Lsthan
	03/17/2013	2.000	Y
Parameter: 1,2,4-TRICHLOROBENZENE	Test date	Result (ug/l)	Lsthan
	03/17/2013	2.000	Y
Parameter: 1,2-DICHLOROETHANE	Test date	Result (ug/l)	Lsthan
	03/17/2013	1.000	Y
Parameter: 1,2-DICHLOROPROPANE	Test date	Result (ug/l)	Lsthan
	03/17/2013	1.000	Y
Parameter: 1,2-DIPHENYLHYDRAZINE	Test date	Result (ug/l)	Lsthan
	03/17/2013	10.000	Y
Parameter: 1,2-TRANS-DICHLOROETHYLENE	Test date	Result (ug/l)	Lsthan
	03/17/2013	1.000	Y
Parameter: 1,3-(M)DICHLOROBENZENE	Test date	Result (ug/l)	Lsthan
	03/17/2013	2.000	Y
Parameter: 1,3-DICHLOROPROPYLENE	Test date	Result (ug/l)	Lsthan
	03/17/2013	1.000	Y
Parameter: 1,4-(P)DICHLOROBENZENE	Test date	Result (ug/l)	Lsthan
	03/17/2013	2.000	Y
Parameter: 2,4,6-TRICHLOROPHENOL	Test date	Result (ug/l)	Lsthan
	03/17/2013	3.000	Y
Parameter: 2,4-DICHLOROPHENOL	Test date	Result (ug/l)	Lsthan
	03/17/2013	5.000	Y
Parameter: 2,4-DIMETHYLPHENOL	Test date	Result (ug/l)	Lsthan
	03/17/2013	5.000	Y
Parameter: 2,4-DINITROPHENOL	Test date	Result (ug/l)	Lsthan
	03/17/2013	5.000	Y
Parameter: 2,4-DINITROTOLUENE	Test date	Result (ug/l)	Lsthan

Data Date Range: 24/Jul/2008 - 24/Jul/2013

Showing all data

Facility name: **NORTHEAST HARBOR**Permit Number: **ME0101346**

Parameter:	Test date	Result (ug/l)	Lsthan
2,6-DINITROTOLUENE	03/17/2013	2.000	Y
2-CHLOROETHYLVINYL ET	03/17/2013	2.000	Y
2-CHLORONAPHTHALENE	03/17/2013	15.000	Y
2-CHLOROPHENOL	03/17/2013	2.000	Y
2-NITROPHENOL	03/17/2013	5.000	Y
3,3'-DICHLOROBENZIDIN	03/17/2013	5.000	Y
3,4-BENZO(B)FLUORANTH	03/17/2013	16.500	Y
4,4'-DDD	03/17/2013	2.000	Y
4,4'-DDE	03/17/2013	0.050	Y
4,4'-DDT	03/17/2013	0.050	Y
4,6-DINITRO-O-CRESOL	03/17/2013	0.050	Y
4-BROMOPHENYLPHENYL	03/17/2013	5.000	Y
4-CHLOROPHENYL PHENY	03/17/2013	2.000	Y
4-NITROPHENOL	03/17/2013	2.000	Y
A-BHC	03/17/2013	5.000	Y
ACENAPHTHENE	03/17/2013	0.200	Y
ACENAPHTHYLENE	03/17/2013	2.000	Y
ACROLEIN	03/17/2013	2.000	Y
	03/17/2013	10.000	Y

Data Date Range: 24/Jul/2008 - 24/Jul/2013

Showing all data

Facility name: **NORTHEAST HARBOR**Permit Number: **ME0101346**

Parameter:	Test date	Result (ug/l)	Lsthan
ACRYLONITRILE	03/17/2013	1.000	Y
A-ENDOSULFAN	03/17/2013	0.050	Y
ALDRIN	03/17/2013	0.150	Y
ALUMINUM	10/13/2009	83.000	N
	03/15/2010	136.000	N
	04/30/2012	75.000	N
	03/17/2013	86.000	N
AMMONIA	10/13/2008	2000.000	Y
	03/15/2010	2000.000	Y
	04/30/2012	2000.000	Y
	03/17/2013	100.000	Y
ANTHRACENE	03/17/2013	2.000	Y
ANTIMONY	03/17/2013	2.000	Y
ARSENIC	10/13/2008	1.000	N
	03/15/2010	1.000	N
	04/30/2012	1.000	N
	03/17/2013	2.000	N
B-BHC	03/17/2013	0.050	Y
B-ENDOSULFAN	03/17/2013	0.050	Y
BENZENE	03/17/2013	1.000	Y
BENZIDINE	03/17/2013	20.000	Y
BENZO(A)ANTHRACENE	03/17/2013	2.000	Y
BENZO(A)PYRENE	03/17/2013	2.000	Y
BENZO(G,H,I)PERYLENE	03/17/2013	2.000	Y

Data Date Range: 24/Jul/2008 - 24/Jul/2013

Showing all data

Facility name: **NORTHEAST HARBOR**Permit Number: **ME0101346**

Parameter:	Test date	Result (ug/l)	Lsthan
Parameter: BENZO(K)FLUORANTHENE	03/17/2013	2.000	Y
Parameter: BERYLLIUM	03/17/2013	0.200	Y
Parameter: BIS(2-CHLOROETHOXY)M	03/17/2013	2.000	Y
Parameter: BIS(2-CHLOROETHYL)ETH	03/17/2013	2.000	Y
Parameter: BIS(2-CHLOROISOPROPYL)	03/17/2013	2.000	Y
Parameter: BIS(2-ETHYLHEXYL)PHTH.	03/17/2013	2.000	Y
Parameter: BROMOFORM	03/17/2013	1.000	Y
Parameter: BUTYLBENZYL PHTHALATE	03/17/2013	2.000	Y
Parameter: CADMIUM	10/13/2008	0.500	Y
	03/15/2010	0.500	Y
	04/30/2012	0.500	Y
Parameter: CARBON TETRACHLORIDE	03/17/2013	0.200	Y
Parameter: CHLORDANE	03/17/2013	1.000	Y
Parameter: CHLORINE	03/17/2013	0.100	Y
	10/13/2008	50.000	Y
	03/15/2010	50.000	Y
	04/30/2012	50.000	Y
Parameter: CHLOROBENZENE	03/17/2013	1.000	Y
Parameter: CHLORODIBROMOMETHANE	03/17/2013	1.000	Y
Parameter: CHLOROETHANE	03/17/2013	1.000	Y
Parameter: CHLOROFORM	03/17/2013	1.000	Y
Parameter: CHROMIUM	03/17/2013	0.600	N

Data Date Range: 24/Jul/2008 - 24/Jul/2013

Showing all data

Facility name: **NORTHEAST HARBOR**Permit Number: **ME0101346**

Parameter:	Test date	Result (ug/l)	Lsthan	
CHRYSENE	10/13/2008	3.000	Y	
	03/15/2010	3.000	Y	
	04/30/2012	3.000	Y	
	03/17/2013	2.000	Y	
COPPER	03/17/2013	2.000	Y	
CYANIDE	10/13/2008	20.800	N	
	03/10/2009	21.000	N	
	09/14/2009	58.000	N	
	02/08/2010	16.000	N	
	03/15/2010	19.400	N	
	07/27/2010	27.000	N	
	05/01/2011	18.000	N	
	11/01/2011	18.000	N	
	02/06/2012	25.000	N	
	04/30/2012	15.100	N	
	08/05/2012	41.000	N	
	03/17/2013	12.000	N	
	D-BHC	10/13/2008	5.000	N
		02/17/2009	5.000	Y
09/08/2009		5.000	Y	
02/09/2010		5.000	Y	
08/03/2010		5.000	Y	
05/02/2011		5.000	Y	
11/02/2011		0.002	N	
02/07/2012		5.000	Y	
08/06/2012		5.000	Y	
03/17/2013		2.000	Y	
DIBENZO(A,H)ANTHRACE	03/17/2013	0.050	Y	
DICHLOROBROMOMETHAI	03/17/2013	2.000	Y	
DIELDRIN	03/17/2013	1.000	Y	
DIETHYL PHTHALATE	03/17/2013	0.050	Y	
DIMETHYL PHTHALATE	03/17/2013	2.000	Y	
DI-N-BUTYL PHTHALATE	03/17/2013	2.000	Y	

Data Date Range: 24/Jul/2008 - 24/Jul/2013

Showing all data

Facility name: **NORTHEAST HARBOR**Permit Number: **ME0101346**

Parameter	Test date	Result (ug/l)	Lsthan
DI-N-OCTYL PHTHALATE	03/17/2013	2.000	Y
ENDOSULFAN SULFATE	03/17/2013	2.000	Y
ENDRIN	03/17/2013	0.100	Y
ENDRIN ALDEHYDE	03/17/2013	0.050	Y
ETHYLBENZENE	03/17/2013	0.050	Y
FLUORANTHENE	03/17/2013	1.000	Y
FLUORENE	03/17/2013	2.000	Y
G-BHC	03/17/2013	2.000	Y
HEPTACHLOR	03/17/2013	0.150	Y
HEPTACHLOR EPOXIDE	03/17/2013	0.150	Y
HEXACHLOROBENZENE	03/17/2013	0.100	Y
HEXACHLOROBUTADIENE	03/17/2013	2.000	Y
HEXACHLOROCYCLOPENT	03/17/2013	1.000	Y
HEXACHLOROETHANE	03/17/2013	2.000	Y
INDENO(1,2,3-CD)PYRENI	03/17/2013	2.000	Y
ISOPHORONE	03/17/2013	2.000	Y
LEAD	03/17/2013	2.000	Y
	10/13/2008	1.500	N
	03/15/2010	2.800	N
	04/30/2012	1.100	N
	03/17/2013	1.000	Y

Data Date Range: 24/Jul/2008 - 24/Jul/2013

Showing all data

Facility name: **NORTHEAST HARBOR**Permit Number: **ME0101346**

Parameter: MERCURY	Test date	Result (ug/l)	Lsthan
	08/26/2008	0.003	N
	10/28/2008	0.003	N
	01/05/2009	0.003	N
	04/14/2009	0.003	N
	09/08/2009	0.004	N
	12/01/2009	0.003	N
	02/10/2010	0.002	N
	07/19/2010	0.001	N
	05/09/2011	0.001	N
	11/15/2011	0.002	N
	05/14/2012	0.002	N
Parameter: METHYL BROMIDE	Test date	Result (ug/l)	Lsthan
	03/17/2013	2.000	Y
Parameter: METHYL CHLORIDE	Test date	Result (ug/l)	Lsthan
	03/17/2013	1.000	Y
Parameter: METHYLENE CHLORIDE	Test date	Result (ug/l)	Lsthan
	03/17/2013	5.000	Y
Parameter: NAPHTHALENE	Test date	Result (ug/l)	Lsthan
	03/17/2013	2.000	Y
Parameter: NICKEL	Test date	Result (ug/l)	Lsthan
	10/13/2008	3.700	N
	03/15/2010	2.000	Y
	04/30/2012	2.000	Y
	03/17/2013	2.000	Y
Parameter: NITROBENZENE	Test date	Result (ug/l)	Lsthan
	03/17/2013	2.000	Y
Parameter: N-NITROSODIMETHYLAMI	Test date	Result (ug/l)	Lsthan
	03/17/2013	1.000	Y
Parameter: N-NITROSODI-N-PROPYL/	Test date	Result (ug/l)	Lsthan
	03/17/2013	2.000	Y
Parameter: N-NITROSODIPHENYLAMI	Test date	Result (ug/l)	Lsthan
	03/17/2013	2.000	Y
Parameter: PCB-1016	Test date	Result (ug/l)	Lsthan
	03/17/2013	0.200	Y
Parameter: PCB-1221	Test date	Result (ug/l)	Lsthan
	03/17/2013	0.200	Y
Parameter: PCB-1232	Test date	Result (ug/l)	Lsthan
	03/17/2013	0.200	Y
Parameter: PCB-1242	Test date	Result (ug/l)	Lsthan
	03/17/2013	0.200	Y

Data Date Range: 24/Jul/2008 - 24/Jul/2013

Showing all data

Facility name: **NORTHEAST HARBOR**Permit Number: **ME0101346**

Parameter	Test date	Result (ug/l)	Lsthan
PCB-1248	03/17/2013	0.200	Y
PCB-1254	03/17/2013	0.200	Y
PCB-1260	03/17/2013	0.200	Y
P-CHLORO-M-CRESOL	03/17/2013	0.200	Y
PENTACHLOROPHENOL	03/17/2013	5.000	Y
PHENANTHRENE	03/17/2013	10.000	Y
PHENOL	03/17/2013	2.000	Y
PYRENE	03/17/2013	5.000	Y
SALINITY	03/17/2013	2.000	Y
SELENIUM	10/13/2008	28.000	N
	03/15/2010	28.000	N
	04/30/2012	26.000	N
SILVER	03/17/2013	2.000	N
TETRACHLOROETHYLENE	10/13/2008	0.500	Y
	03/15/2010	0.500	Y
	04/30/2012	0.500	Y
	03/17/2013	0.300	Y
THALLIUM	03/17/2013	1.000	Y
TOC	03/17/2013	1.000	Y
TOLUENE	04/30/2012	4800.000	N
TOXAPHENE	03/17/2013	1.000	Y
	03/17/2013	1.000	Y

Data Date Range: 24/Jul/2008 - 24/Jul/2013

Showing all data

Facility name: **NORTHEAST HARBOR**Permit Number: **ME0101346**

Parameter:	Test date	Result (ug/l)	Lsthan
TRICHLOROETHYLENE	03/17/2013	1.000	Y
Parameter: TSS	Test date	Result (ug/l)	Lsthan
	04/30/2012	3000.000	N
Parameter: VINYL CHLORIDE	Test date	Result (ug/l)	Lsthan
	03/17/2013	1.000	Y
Parameter: ZINC	Test date	Result (ug/l)	Lsthan
	10/13/2008	53.000	N
	03/15/2010	44.000	N
	04/30/2012	70.000	N
	03/17/2013	27.000	N

ATTACHMENT F

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

MEMORANDUM

DATE: October 2008

TO: Interested Parties

FROM: Dennis Merrill, DEP

SUBJECT: DEP's system for evaluating toxicity from multiple discharges

Following the requirements of DEP's rules, Chapter 530, section 4(F), the Department is evaluating discharges of toxic pollutants into a freshwater river system in order to prevent cumulative impacts from multiple discharges. This is being through the use of a computer program known internally as "DeTox". The enclosed package of information is intended to introduce you to this system.

Briefly, the DeTox program evaluates each wastewater facility within a watershed in three different ways in order to characterize its effluent: 1) the facility's past history of discharges, 2) its potential toxicity at the point of discharge on an individual basis, and 3) the facility's contribution to cumulative toxicity within a river segment in conjunction with other facilities. The value that is most protective of water quality becomes the value that is held in the DeTox system as an allocation for the specific facility and pollutant.

The system is not static and uses a five-year "rolling" data window. This means that, over time, old test results drop off and newer ones are added. The intent of this process is to maintain current, uniform facility data to estimate contributions to a river's total allowable pollutant loading prior to each permit renewal.

Many facilities are required to do only a relatively small amount of pollutant testing on their effluent. This means, statistically, the fewer tests done, the greater the possibility of effluent limits being necessary based on the facility's small amount of data. To avoid this situation, most facilities, especially those with low dilution factors, should consider conducting more than the minimum number of tests required by the rules.

Attached you will find three documents with additional information on the DeTox system:

- Methods for evaluating the effects of multiple discharges of toxic pollutants
- Working definitions of terms used in the DeTox system
- Reviewing DeTox Reports
- Prototype facility and pollutant reports

If you have questions as you review these, please do not hesitate to contact me at Dennis.L.Merrill@maine.gov or 287-7788.

Maine Department of Environmental Protection

Methods for evaluating the effects of multiple discharges of toxic pollutants.

Reference: DEP Rules, Chapter 530, section 4(F)

To evaluate discharges of toxic pollutants into a freshwater river system and prevent cumulative impacts from multiple discharges, DEP uses a computer program called "DeTox" that functions as a mathematical evaluation tool.

It uses physical information about discharge sources and river conditions on file with the Department, established water quality criteria and reported effluent test information to perform these evaluations. Each toxic pollutant and associated water quality criterion for acute, chronic and/or human health effects is evaluated separately.

Each facility in a river drainage area has an assigned position code. This "address" is used to locate the facility on the river segment and in relation to other facilities and tributary streams. All calculations are performed in pounds per day to allow analysis on a mass balance. Pollutants are considered to be conservative in that once in the receiving water they will not easily degrade and have the potential to accumulate.

The process begins with establishing an assimilative capacity for each pollutant and water quality criterion at the most downstream point in the river segment. This calculation includes set-aside amounts for background and reserve quantities and assumed values for receiving water pH, temperature and hardness. The resulting amount of assimilative capacity is available for allocation among facilities on the river.

Each facility is evaluated to characterize its past discharge quantities. The historical discharge, in pounds per day, is figured using the average reported concentration and the facility's permitted flow. As has been past practice, a reasonable potential (RP) factor is used as a tool to estimate the largest discharge that may occur with a certain degree of statistical certainty. The RP factor is multiplied by the historical average to determine an allocation based on past discharges. The RP factor is also multiplied by the single highest test to obtain a maximum day estimate. Finally, the direct average without RP adjustment is used to determine the facility's percent contribution to the river segment in comparison to the sum of all discharges of the pollutant. This percent multiplied by the total assimilative capacity becomes the facility's discharge allocation used in evaluations of the segment loadings.

Additionally, individual facility discharges are evaluated as single sources, as they have been in the past to determine if local conditions are more limiting than a segment evaluation.

With all of this information, facilities are evaluated in three ways. The methods are:

1. The facility's past history. This is the average quantity discharged during the past five years multiplied by the applicable RP factor. This method is often the basis for an allocation when the discharge quantity is relatively small in comparison to the water quality based allocation.
2. An individual evaluation. This assumes no other discharge sources are present and the allowable quantity is the total available assimilative capacity. This method may be used when a local condition such as river flow at the point of discharge is the limiting factor.
3. A segment wide evaluation. This involves allocating the available assimilative capacity within a river segment based on a facility's percent of total past discharges. This method would be used when multiple discharges of the same pollutant to the same segment and the available assimilative capacity is relatively limited.

The value that is most protective of water quality becomes the facility's allocation that is held in the system for the specific facility and pollutant. It is important to note that the method used for allocation is facility and pollutant specific and different facilities on the same segment for the same pollutant can have different methods used depending on their individual situations.

Discharge amounts are always allocated to all facilities having a history of discharging a particular pollutant. This does not mean that effluent limits will be established in a permit. Limits are only needed when past discharge amounts suggest a reasonable potential to exceed a water quality based allocation, either on an individual or segment basis. Similar to past practices for single discharge evaluations, the single highest test value is multiplied by a RP factor and if product is greater than the water quality allowance, an effluent limit is established. It is important to remember an allocation is "banking" some assimilative capacity for a facility even if effluent limits are not needed.

Evaluations are also done for each tributary segment with the sum of discharge quantities in tributaries becoming a "point source" to the next most significant segment. In cases where a facility does not use all of its assimilative capacity, usually due to a more limiting individual water quality criterion, the unused quantity is rolled downstream and made available to other facilities.

The system is not static and uses a five-year rolling data window. Over time, old tests drop off and newer ones are added on. These changes cause the allocations and the need for effluent limits to shift over time to remain current with present conditions. The intent is to update a facility's data and relative contribution to a river's total assimilative capacity prior to each permit renewal. Many facilities are required to do only minimal testing to characterize their effluents. This creates a greater degree of statistical uncertainty about the true long-term quantities. Accordingly, with fewer tests the RP factor will be larger and result in a greater possibility of effluent limits being necessary. To avoid this situation, most facilities, especially those with relatively low dilution factors, are encouraged to conduct more than a minimum number of tests. It is generally to a facility's long-term benefit to have more tests on file since their RP factor will be reduced.

Maine Department of Environmental Protection

Working Definitions of Terms Used in the DeTox System.

Allocation. The amount of pollutant loading set aside for a facility. Separate amounts are set for each *water quality criterion*. Each pollutant having a history of being discharged will receive an allocation, but not all allocations become *effluent limits*. Allocation may be made in three ways: *historical allocation*, *individual allocation* or *segment allocation*.

Assimilative capacity. The amount of a pollutant that river segment can safely accept from point source discharges. It is determined for the most downstream point in a river segment using the *water quality criterion* and river flow. Separate capacities are set for acute, chronic and human health criteria as applicable for each pollutant. Calculation of this capacity includes factors for *reserve* and *background* amounts.

Background. A concentration of a pollutant that is assumed to be present in a receiving water but not attributable to discharges. By rule, this is set as a rebuttable presumption at 10% of the applicable *water quality criterion*.

Effluent limit. A numeric limit in a discharge permit specifically restricting the amount of a pollutant that may be discharged. An effluent limit is set only when the highest discharge, including an adjustment for *reasonable potential*, is greater than a facility's water quality based *allocation* for a pollutant.

Historical allocation (or RP history). One of three ways of developing an *allocation*. The facility's average history of discharges, in pounds at design flow, is multiplied by the appropriate *reasonable potential* factor. An allocation using this method does not become an *effluent limit*.

Historical discharge percentage. For each pollutant, the average discharge concentration for each facility in a segment is multiplied by the permitted flow (without including a *reasonable potential* factor). The amounts for all facilities are added together and a percent of the total is figured for each facility. When a facility has no detectable concentrations, that pollutant is assumed to be not present and it receives no percentage.

Individual allocation. One of three ways of developing an *allocation*. The facility's single highest discharge on record multiplied by the appropriate *reasonable potential* factor is compared to a water quality based quantity with an assumption that the facility is the only point source to that receiving water. If the RP-adjusted amount is larger, the water quality amount may become an *effluent limit*.

Less than. A qualification on a laboratory report indicating the concentration of a pollutant was below a certain concentration. Such a result is evaluated as being one half of the Department's reporting limit in most calculations.

Reasonable potential (RP). A statistical method to determine the highest amount of a pollutant likely to be present at any time based on the available test results. The method produces a value or RP factor that is multiplied by test results. The method relies on an EPA guidance document, and considers the coefficient of variation and the number of tests. Generally, the fewer number of tests, the higher the RP factor.

Reserve. An assumed concentration of a pollutant that set aside to account for non-point source of a pollutant and to allow new discharges of a pollutant. By rule this is set at 15% of the applicable *water quality criterion*.

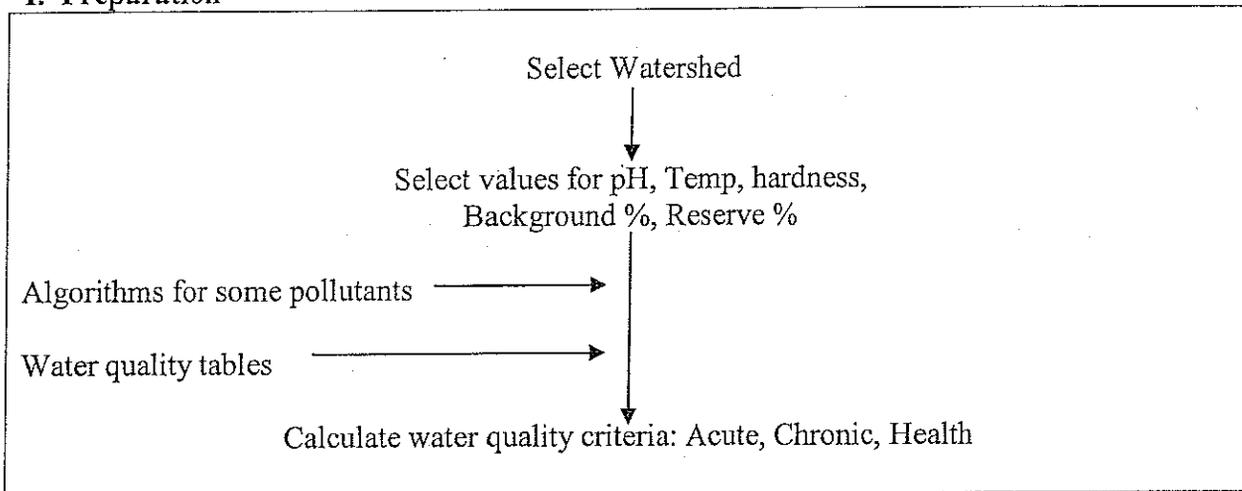
Segment allocation. One of three ways of developing an *allocation*. The amount is set by multiplying a facility's *historical discharge percentage* for a specific pollutant by the *assimilative capacity* for that pollutant and criterion. A facility will have different allocation percentages for each pollutant. This amount may become an *effluent limit*.

Tributary. A stream flowing into a larger one. A total pollutant load is set by adding the all facilities *allocations* on the tributary and treating this totaled amount as a "point source" to the next larger segment.

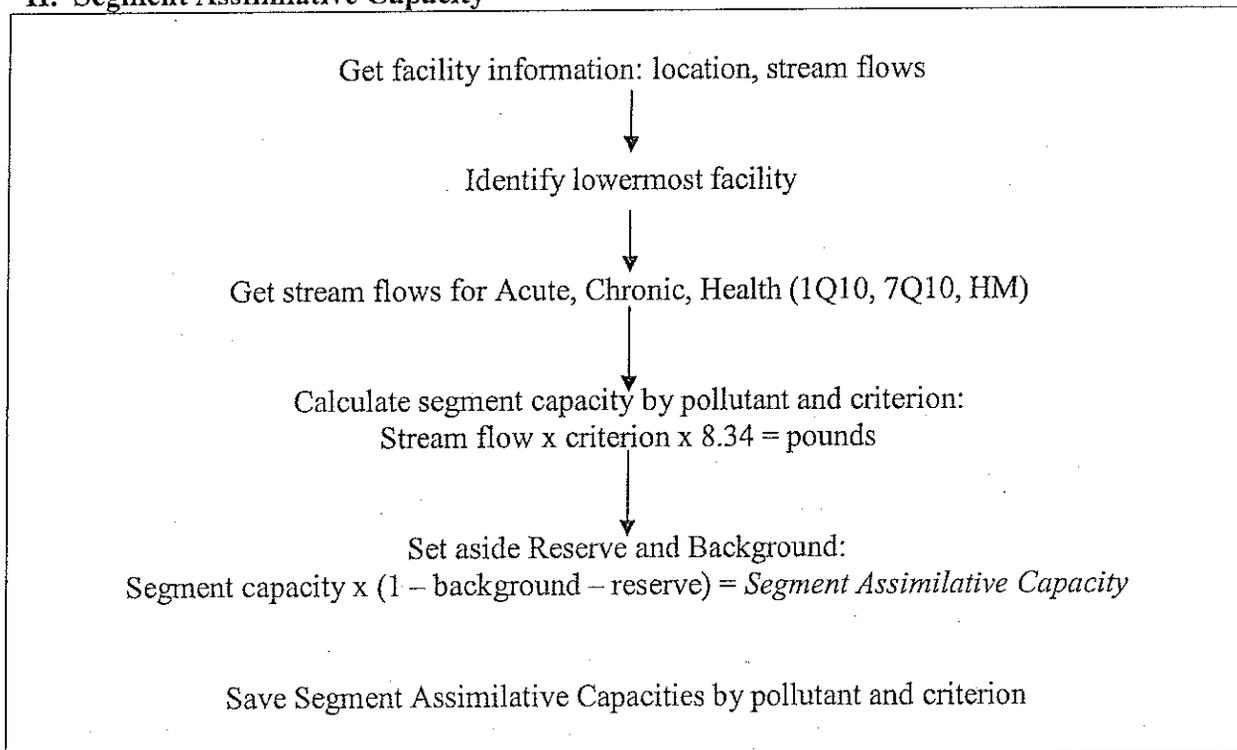
Water quality criteria. Standards for acceptable in-stream or ambient levels of pollutants. These are established in the Department's Chapter 584 and are expressed as concentrations in ug/L. There may be separate standards for acute and chronic protection aquatic life and/or human health. Each criterion becomes a separate standard. Different stream flows are used in the calculation of each.

Maine Department of Environmental Protection
General Processing Steps in "DeTox"

I. Preparation



II. Segment Assimilative Capacity

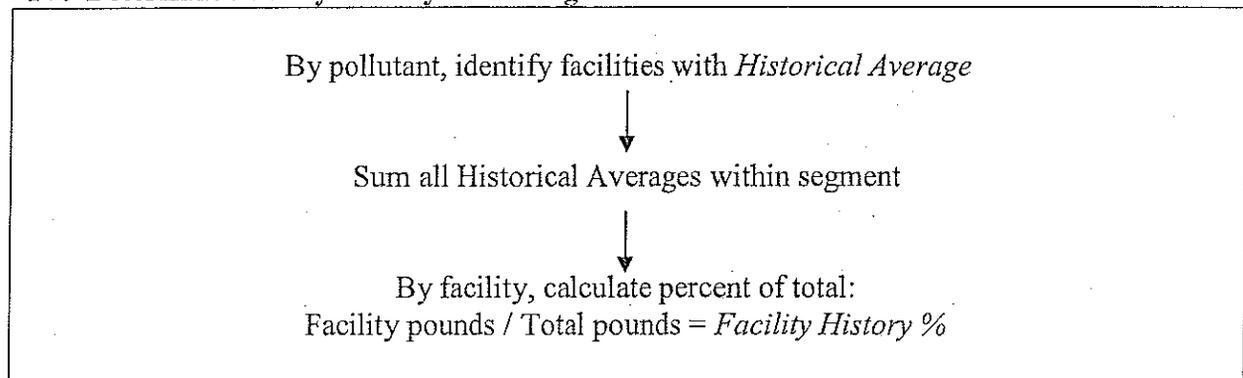


Maine Department of Environmental Protection
General Processing Steps in "DeTox"

III. Evaluate History by Pollutant

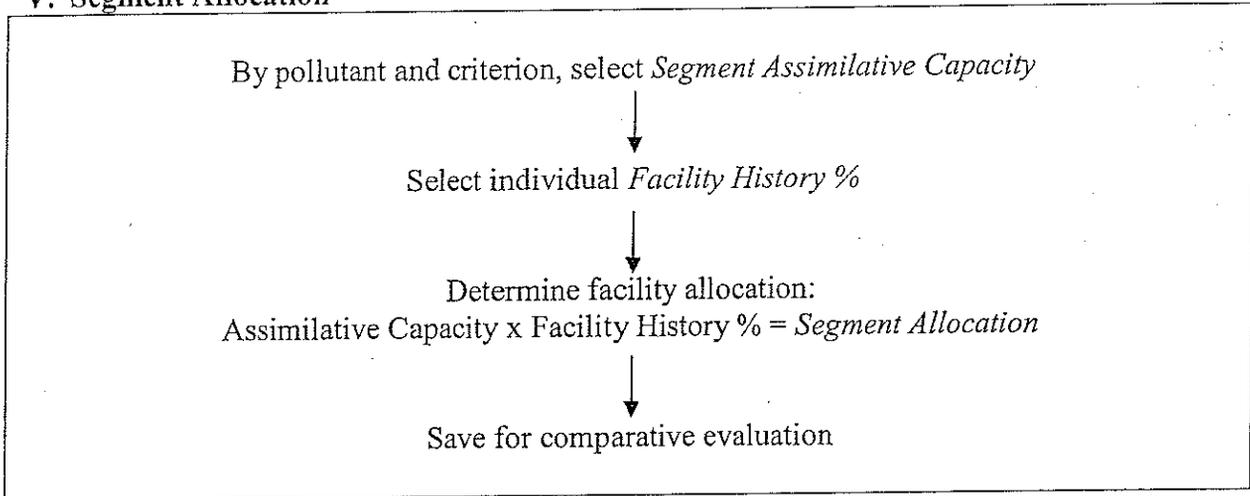


IV. Determine Facility History Percentage

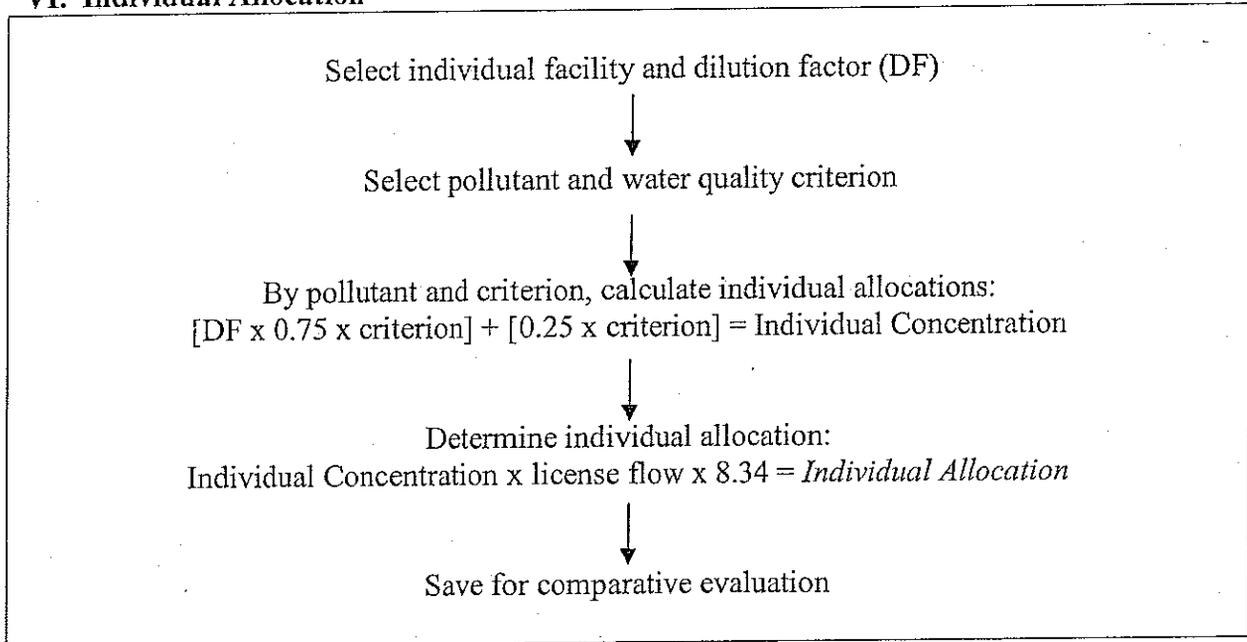


Maine Department of Environmental Protection
General Processing Steps in "DeTox"

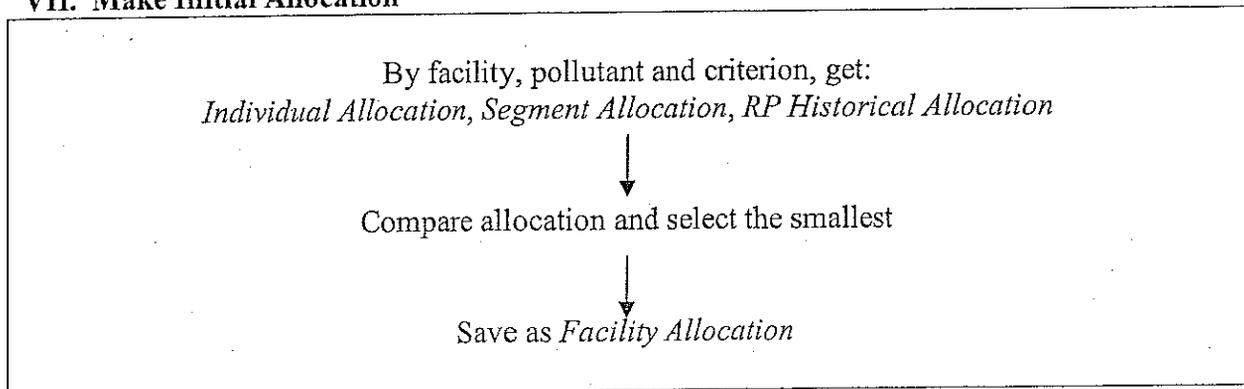
V. Segment Allocation



VI. Individual Allocation

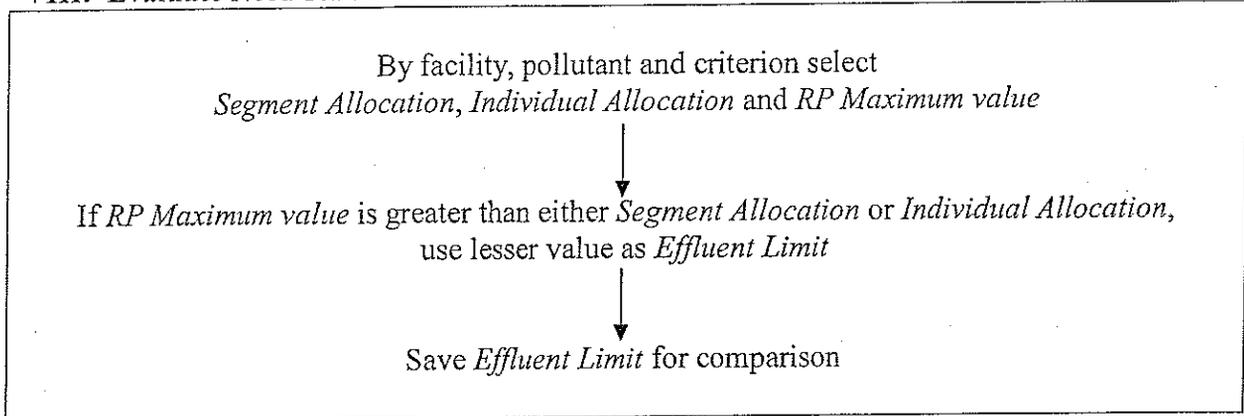


VII. Make Initial Allocation

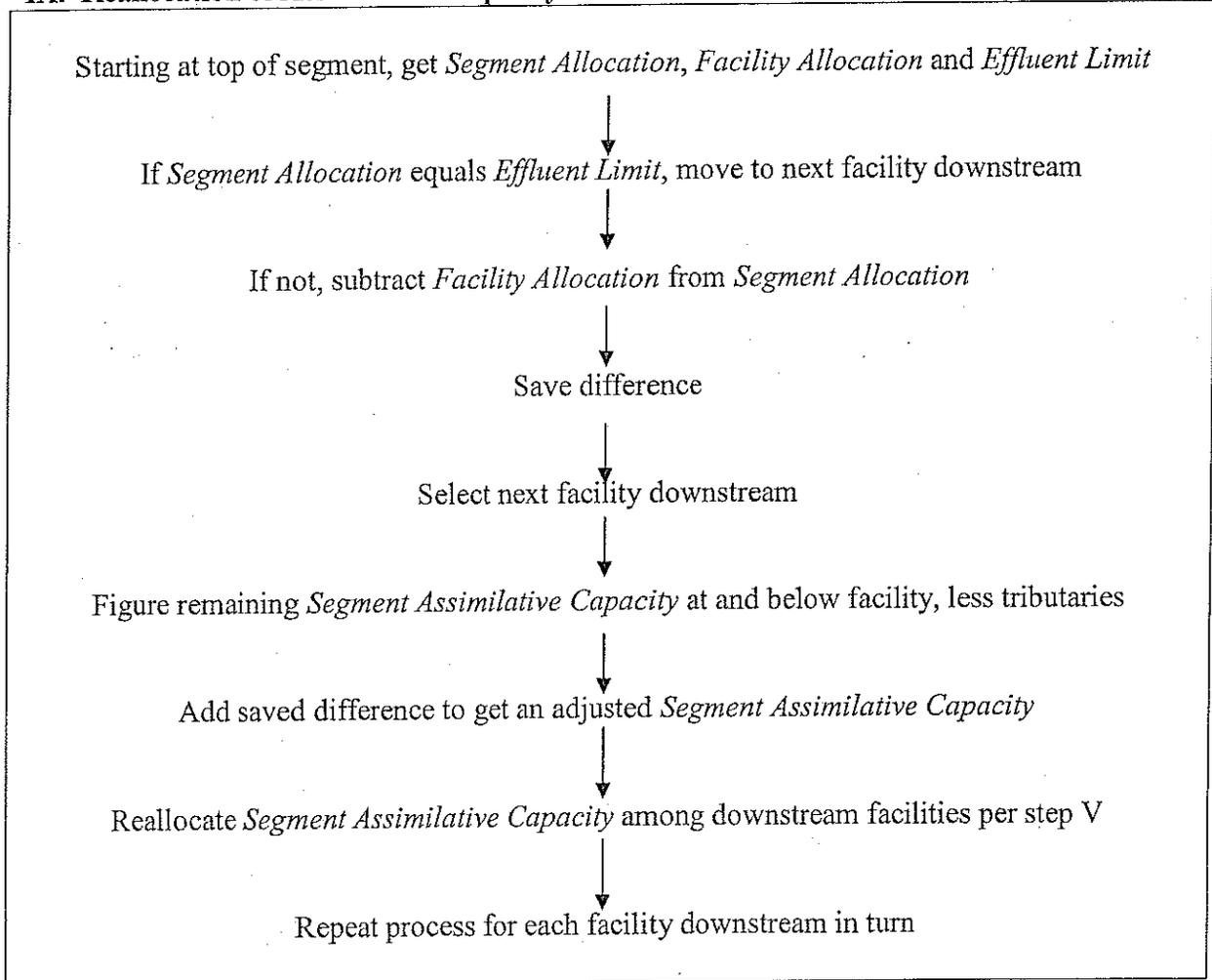


Maine Department of Environmental Protection
General Processing Steps in "DeTox"

VIII. Evaluate Need for Effluent Limits



IX. Reallocation of Assimilative Capacity



ATTACHMENT G



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAPTER 530.2(D)(4) CERTIFICATION

PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
Commissioner

MEPDES# _____ Facility Name _____

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

COMMENTS:

Name (printed): _____

Signature: _____ Date: _____

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

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

Scheduled Toxicity Testing for the next calendar year

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

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

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

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